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CLINICAL LECTURE.

ASTHMA.

BY JAMES M. ANDERS, M. D.,
PROFESSOR OF THEORY AND PRACTICE OF MEDICINE, CLINICAL MEDICINE, AND HYGIENE AT
THE MEDICO-CHIRURGICAL COLLEGE, OF
PHILADELPHIA.

We have before us to-day A. B., 17 years of age, the son of a farmer. Since four years of age he has had attacks of dyspnoea, at first supposed to be croupous. He now has rest from the attacks for a week at a time. They usually occur at intervals of about a week or ten days. One way he gets rest, namely, by leaning forward over the back of a chair. Family history is almost negative. A sister had convulsions commencing with teething and continuing through life. His attacks came on in the morning, between two and three o'clock. In all patients, similar attacks usually come on after midnight, and may be preceded by itching of the skin; by a sense of constriction in the throat. Sometimes, in this patient's case, the attack lasts only until morning; sometimes all the next day, and the patient feels as if his windpipe was stopped up. He wheezes, especially when the breath is being blown out. When the attack is passing off, he spits up mucus. The patient thinks a "cold" brings on such attacks.

The symptoms given point to asthma. Asthma may be symptomatic; it may be a disease *per se*; it may be secondary to emphysema; secondary to brain troubles and to heart disease.

On examination, vocal fremitus is normal. On inspection, there is epigastric impulse. This is probably due to hypertrophy of the right ventricle. On percussion, resonance is normal in all parts, while auscultation reveals

nothing abnormal. If examined during an attack, the lower part of the chest would be seen to be depressed at each inspiration; his hands would be found grasping the knees in order to aid respiration; vocal fremitus would be normal unless some of the tubes were entirely occluded in local patches, and when this does occur it is generally at the back.

The physical signs to guide one, however, are those obtained by percussion and auscultation. During an attack there would be exaggerated percussion resonance, because of the contraction of the smaller bronchioles preventing free exit of air. On auscultation, we get all kinds of râles, whistling, snoring, cooing, etc. Being all made in a dry stage, they would be classed as sibilant or sonorous râles. Sibilant râles show that the caliber of the smaller tubes is much diminished. When the attack is about to break up, the sounds become more moist and we get subcrepitant râles. In the larger tubes we may get mucous râles. The subcrepitant râles are heard both on inspiration and expiration. When the attack breaks up the air seems sometimes to pass suddenly with perfect freedom to all parts of the lungs. Sometimes an attack passing off, stays away for weeks, or even months. It may come back without any apparent cause. Sometimes the patients know the cause, which may be that they have eaten something indigestible or have taken cold.

The predisposing causes of asthma are summed up in one word: heredity. Asthma is closely allied to emphysema, which is also hereditary. The disease is apt to skip one generation. We are apt to find in the family a history of convulsions also. Frequently, where there are cases of asthma in a family, you also have cases of rheumatism; well marked gouty, or rheumatic diathesis. It may not, however, be in the same generation in which the attacks of asthma occur. In this young man's family there is no history of gout nor of rheumatism, but of convulsions, you will recall.

The exciting causes are powders or dusts

of various sorts in the atmosphere (some people who live in the country and are affected may move to a city where the atmosphere is smoky, and be entirely relieved). One exciting cause is the influence of a well-marked "cold," as in this case. Any irritation of the nerves of the nose, of the stomach, of distant organs, may cause asthma by reflex action on the nerves of the bronchial mucous membrane.

The prognosis should always be guarded. When the attacks occur in the young, are not severe, with long intervals between and where there are no complications, the prognosis may be favorable. When the attacks come on at middle age, where they are severe and especially where they have led to secondary affections, such as emphysema, the prognosis is unfavorable as to recovery; favorable as to life.

Asthma is not a disease of old age. Before ten years, more cases occur than in any other decade. The reason it is seen in the old so frequently is because those who develop the disease while young, carry it through life with them.

The treatment must be directed to breaking up the attack and to prevention of a recurrence during the interval.

During the attack if it be severe, the remedy must be heroic. Not, however, in the old. In the young adult, in very severe cases, give morphine, not more than $\frac{1}{4}$ grain doses hypodermically. It is not generally necessary to repeat the dose. If morphine will not succeed or is contraindicated, chloroform may be given by inhalation. It should be given until the attack shows signs of breaking up, when a return of the attack should be awaited before again using it. It may be necessary to carry the chloroform to the point of insensibility. This does no harm but should not be carried beyond that point. Another remedy is tincture of lobelia, which may be given in 5 or 10 minim doses every half hour until the attack is broken up. Some cases will not stand lobelia. The lobelia should be stopped as soon as the attack is over. Smoking of stramonium leaves saturated with a solution of nitrate of potassium, then dried, is a valuable remedy. Nitrate of potassium may be tried alone. It is prepared by taking a piece of bibulous paper, soaking it in a saturated solution of the potassium nitrate and allowing it to dry. This is then burned so that the smoke may be inhaled. The effect of this remedy is not understood; it may be due to the smoke; it may be due to chemical substances formed in the combustion. Chloral may be used, and

may be given in a single dose of 30 grains. If no relief follows, 30 grains more may be given, but you should not go beyond this. Bromide of potassium does good, but is too slow to use during the attack. It may be used, with other remedies, during the interval, and gives beneficial results. It is said that when everything else fails, alcoholic stimulation is sometimes found to be of use. It is best given in the form of hot toddy.

To prevent the recurrence of the attacks, first remove the known causes. Then attend to the food, clothing, exercise. Woollens should be worn next the skin and moderate but persistent exercise in the open air, should be taken. Patients who suffer from asthma should take light suppers, as overloaded conditions of the stomach certainly have a tendency to bring on severe attacks.

To control the passive congestion which occurs during an attack and sometime after, iodide of potassium or syrup of hydriodic acid should be given. The use of either of these remedies must be persisted in; the effect is always gradual. Along with the iodide of potassium in these cases, we give arsenic as follows:

R

Potassii Iodidi..... gr. v.
Liq. potassii arsenitis..... m. v.

after meals, in water. When the patient cannot take the iodide, give syrup of hydriodic acid. Arsenic feeds the blood and stimulates the respiratory centers.

As a word of caution, let me tell you never to advise the patient to use chloroform himself. We shall tell this patient to use tincture of lobelia, five minims every half hour, until the attack is broken up; besides, we shall give regularly the prescription containing the iodide of potassium and Fowler's solution.

There are remaining a few minutes, which it might be well to develop to the differential diagnosis of asthma. The most frequent conditions with which it is confounded, are acute or chronic bronchitis. Bronchitis frequently causes a certain degree of shortness of breath, especially when associated with heart affections. However, the dyspnea of bronchitis does not come on nor go off so suddenly as that of asthma, nor do we have the absence of respiratory murmur during the attack, and abundance of expectoration at the end of it.

Asthma is frequently associated with emphysema. These two affections are each cause or effect of the other at different times. The history sometimes tells us which is the primary affection. When attacks of asthma show

the absence of symptoms and physical signs between the seizures, it is indicative of the absence of emphysema. This was the case in the patient before us. In emphysema, the dyspnoea is permanent, the chest is permanently enlarged.

Another disease sometimes mistaken for asthma is a spasmodic contraction of the diaphragm, occurring usually in hysterical women. In this disease there is the same form of inspiration but there is not the same violent effort at expiration. In hysterical cases there is inspiration after which the breath is held, and then the expiratory movement is easy.

In membranous croup the breathing at first seems like a bad attack of asthma. In croup, however, the dyspnoea attends inspiration, not expiration; indeed in all diseases which affect this part of the organism, that is the larynx and trachea, the dyspnoea occurs on inspiration.

Another disease mistaken for asthma, is intercostal neuralgia. In this disease, there is tenderness at the point where the nerve emerges; the breathing would not be similar to asthma on expiration. There would not be the pain in asthma, which is present in intercostal neuralgia. In intercostal neuralgia the seat of tenderness is either near the spine, in the back, or near the sternum, in front.

COMMUNICATIONS.

SUCCESSFUL OPERATION IN FRACTURED AND DISLOCATED VERTEBRÆ.

BY H. A. BOYLE, M. D.,

STATE HOSPITAL, FOUNTAIN SPRINGS, PA.

On May 8, S. M., aged 20 years, was admitted to the State Hospital at Ashland, suffering with an injury to the spine which he encountered by being struck by a passing train at St. Clair. He was under considerable shock and had complete loss of motion and sensation from the hips down. From the deformity and symptoms a diagnosis of backward dislocation with or without fracture of the 10th, 11th and 12th dorsal vertebræ was made. Attempts at reduction by extension and pressure were without avail, and an operation was suggested to the patient, which he refused. There was slight priapism, but no paralysis of the sphincter. For the first week after the

injury catheterization was necessary, but after that he was able to void his urine. Once the urine was bloody, but frequent use of the catheter kept the bladder in good condition. He had continual, severe ataxic pains from the knees down, more marked in the left leg, with hyperæsthesia in both legs. Stubborn constipation was always present, which was controlled by enemata. Temperature was never more than one degree from the normal, usually a little below. Much care was necessary to prevent bed sores. He was put on a mixture of Tr. Nucis Vomice and Fl. Ext. Ergot, of each 3ss. 20 drops 4 times daily. Nocturnal emissions were very common. His appetite was always poor, but the stomach never irritable. He gradually sank, until on July 12, he consented to an operation, when Dr. Biddle, assisted by the hospital staff and Dr. Brady, of Scranton, cut down on the spinal column, and found a sharp dislocation between the 9th and 10th dorsal vertebræ backward and between the last dorsal and first lumbar forward. The bodies of the three vertebræ being so far backward as nearly to occlude the canal and producing great pressure on the cord or the two sites of dislocation. The cord was also stretched from the normal position. An incision 8 inches long to the left of the spinous processes was made. All of the bony canal down to the bodies of the three dislocated vertebræ was removed and the posterior part of the bodies was chipped off and shaped up to relieve the cord, thus leaving that part of the cord in this situation entirely without any bony covering posteriorly. Spiculæ of bone were removed and the wound made thoroughly aseptic by the use of bichloride solution 1 to 1,000. In shaping out the bodies the cord was lifted out of place with a retractor. Continued suture of ordinary black silk was used, and a drainage tube inserted. He was under ether about 30 minutes and stood the operation well. Primary union took place with no bad symptoms. On the second day after the operation he showed slight signs of motion in the toes, this movement being barely perceptible. Sensation also was faintly noticed. Since that time the ataxic pains have ceased, he now has good sensation and motion, and can stand up and walk with the aid of parallel bars. He sleeps and eats well, is cheerful and has gained much flesh. The history of this case seems to point out that in many cases of fractured and dislocated vertebræ with much pressure, immediate operation might do much good, and that

many patients with "broken back" who otherwise would go on gradually but surely to death, might be saved by such procedure.

OPERATIVE TREATMENT FOR RUPTURED PERINEUM. *

BY DR. E. E. RICHARDS,
OF NORRISTOWN, PA.

This injury to the perineum is of such frequency that the operation for its repair is the commonest and best known plastic procedure.

The inconvenience of ruptured perineum scarcely needs any explanation. We have following it, loss of functions of the sphincter ani muscle, rectocele, cystocele, prolapsus and procidentia uteri, and a train of nervous symptoms whose name is legion.

Believing that "an ounce of prevention is worth a pound of cure" in this matter especially, let us consider the causes which lead to this accident, and the best means of averting it.

The most frequent predisposing causes are a small inferior strait, a long and rigid perineum, all malpresentations as podalic, occipito-posterior varieties, broad shoulders, any degeneration as cicatricial tissue, either sudden or protracted expulsion of the child, and the use of forceps before natural dilatation has been effected.

For the prevention of tears, we can resort to gradual dilatation controlling uterine contractions, emptying the rectum to prevent tenesmus; by having the patient assume the lateral position and thus modifying the contractions by support of, and forward pressure of the head, by enucleation of the head, and the use of an anæsthetic, as ether, to bring about relaxation of the parts and preventing tenesmus.

With a rigid and unyielding perineum, lateral incisions are preferable to a laceration.

The sign of danger is the white triangular glistening mark along the perineum, and the incision should be made on the lateral margin at a point corresponding with the tuberosity of the ischium, the incision being made with a probe pointed bistoury, turning the edge out, and cutting for a distance of 1 c. m., during a contraction. If the perineum is still white an incision should be made on the opposite side. With all of these precau-

tions carefully observed, we may have a ruptured perineum. When a rupture is discovered after labor it should be sewed up at once. This condition is frequently apparent to the patient when the physician has been known to stubbornly deny its existence, the patient complaining of a smarting and burning sensation over the torn surface upon voiding urine. In this enlightened day and generation there is nothing to justify neglect in the immediate repair of laceration of the perineum, even less the stupidity of the physician who fails to recognize such a condition.

The best procedure is the primary operation, especially when the sphincter ani is not much involved. The contra-indications being exhaustion due to hæmorrhage, and a long and difficult labor.

The torn parts still fresh and bleeding are brought in apposition by means of sutures. Union is sometimes consummated by keeping the parts together without suture, by bandaging the limbs together and observing cleanliness—but this method is not to be relied upon—sutures can sometimes be introduced without the use of ether.

When labor is more than 24 hours over, the primary operation is useless, and a secondary operation must be resorted to, in which case it is always necessary to etherize. The vulvæ should be allowed to return to their normal condition, all congestions and contusions being allowed to disappear before an operation is attempted.

There are certain preliminaries which it is the duty of every operator to observe, in order, not only to promote the healing of the wound, but also to insure the formation of a strong cicatrix. To this end the general health should receive proper attention. Careful attention must be given to the relief of symptoms of hæmorrhoids, or vaginal and uterine discharges. Internal piles are a frequent complication of ruptured perineum in consequence of the injury to the sphincter ani. Some of the most distressing subjective symptoms of piles will be absent; but the hæmorrhoidal swelling will cause great inconvenience to the operator, and they always imply a more or less unhealthy state of the surrounding mucous membrane. Discharges from the genital tract may prove very prejudicial to the healing process. Where they occur they must be corrected before any operation is attempted, as their presence upon the denuded surfaces will retard the healing process. Hot water injections, pledgets of cotton soaked in glycerine, with the addition of boracic acid or of glycerite of tannin, applied to the cervix will generally

* Read before the Montgomery County Medical Society, July 22, 1891.

do much good. Where the lacerations have been of long standing, frequently the general health is seriously impaired, and operative measures would be almost useless, unless tonic treatment has restored, in some measure at least, the general health. Among operators, opinions differ considerably as to the details of the operation, some preferring one kind of suture and some another, and also as to the best kind of after treatment, but all are guided by one principle, the necessity of sewing up the parts so as to secure the best possible union.

Two forms of rupture present themselves for our consideration, partial and complete.

In partial rupture the laceration involves the tissues down to or partly through the sphincter ani muscle. Complete laceration extends through to the anus and involves more or less of the recto-vaginal septum and wall of the rectum. In rare instances the laceration is central, extending from the inferior vaginal wall to some point in the perineum, the fourchette and sphincter ani remaining intact.

The indications are to restore as near as possible the normal relations of the separated tissues.

In operation for partial rupture, for a week previous, the patient should be prepared by emptying the alimentary canal by proper purgatives, and this can be secured by the administration of Hunyadi Water, before breakfast, or the *Fld. Ext. Cascara sagrada* η . x-xxx three times daily—or any other suitable purgative.

The patient should be placed largely upon a liquid diet during the last three days preceding, and an enema should always be administered shortly before the operation. The purgative must not be given with such frequency as to produce diarrhoea and thus cause serious inconvenience during the operation.

The instruments required are a Tenaculum, and good tissue forceps, a pair of scissors curved on the flat, strong needle holder and strong needles, half curved near the point and without cutting edges, silver wire and Chinese silk, and catgut sutures, for deep and superficial stitches, and antiseptic sponges.

The patient should be placed in the lithotomy position immediately after she is under the influence of an anæsthetic, the legs to be supported by two assistants, or what is infinitely better, a Clover's crutch, if it can be had. The vagina, vulva and anal region should be irrigated with a solution of corrosive sublimate 1-3000.

The glistening smooth surface of the cicatrix will determine the full extent of the laceration.

The denudation should extend upward along the labium of either side, and well up into the depression or angle where the floor of the vagina and labia come together. Upon the floor of the vagina the freshening should extend backward to the crest of the rectocele, the elevation formed by the bulging forward of the vagina.

Denudation of the vaginal walls can be most rapidly accomplished by inserting the finger into the rectum, thus making the surface to be freshened tense and elevated.

The first suture is introduced near the sphincter ani, the sutures to be inserted about $\frac{1}{2}$ inch apart, the needle entering the same distance from the edge of the wound and carried through from the patient's left to right side. The finger should be kept in the rectum, to prevent the needle from penetrating into the rectum, and to guide it safely through the recto-vaginal septum. A supporting suture, the last of all, can be inserted at the upper limit of the freshened surfaces, passing through the labia and coming out in the cavity of the vagina.

The ends of the wire of each suture, should be loosely twisted to prevent being pulled out by accident. When all the sutures have been introduced the wound should be cleansed and disinfected with a bichloride solution, and the wire twisted, commencing with the lowest. The twisted ends can be secured by perforated shot, or the ends can be gathered together and covered by a piece of soft rubber tubing.

The patient's thighs should be bandaged together, and she to be placed on her back, and the catheter introduced every 5-7 hours. The bowels should be confined for 4 or 5 days, and at the expiration of that time a warm water enema should be given to secure a liquid discharge, the sutures to be removed in 8-10 days. Abduction of the thighs should not be permitted until the 14th day.

In the secondary operation for complete laceration of the perineum, the preparatory treatment for partial rupture should be rigidly enforced. The chief objects of this operation are to restore the functions of the sphincter muscle, and restore the perineal body.

The freshening should extend along the triangular cicatricial surface of each half of the divided perineum, and along the entire edge of the rent into the recto-vaginal septum. For the first suture the needle is

introduced just at the margin of the anus, and $\frac{1}{2}$ inch from the denuded surface. It is directed through the recto-vaginal septum to the angle of the rent and back along the opposite side at a point corresponding to the insertion. In this instance also, great caution must be observed that the needle does not enter the rectum. A second suture is passed parallel with this, the remaining sutures being inserted as in the operation for incomplete rupture.

(In a case upon which I recently operated I introduced a double drawing-string stitch of strong catgut along the denuded anterior margin of the obliterated sphincter ani, in which good union resulted, and the securing of an efficient sphincter ani.)

The bowels should be confined for 7-9 days, after the operation, and then opened with an enema which should *invariably* be administered by the physician.

In removing the stitches the anus stitches should remain in until the bowels have been evacuated so as to preserve the freshly united structures.

As complete union in this condition is very difficult of accomplishment the operator need not feel disappointed if a second or third operation should be found necessary.

I have been interested in the marked nervous symptoms which have developed in some cases that have recently come under my observation following operative measures.

Sleeplessness, fear of impending evil, loss of memory, a feeling of horror that they may be becoming insane, and such symptoms as might make one fear serious mental derangement.

I am not prepared to advance any theory as to the cause or combination of causes which may give rise to these symptoms, and should be pleased to hear from those members of the profession who have had similar experiences as to their views in this matter.

SUPPURATIVE INFLAMMATION IN UNDETECTED FRACTURE.*

J. T. WILSON, M. D.,
SHERMAN, TEXAS.

Simple fractures, both complete and incomplete, in the long bones, more especially those of the arm and forearm, which were

not recognized at the time of injury, are not extremely rare occurrences, as I doubt not the results of such cases that do not make an early recovery come under the observation of most practitioners.

I am inclined to think that a majority of these cases occur in children, in which the fracture is not complete and the ends never become much displaced.

There may be complete simple fractures of the humerus, of one of the bones of the arm, or of one of those of the leg, with but little displacement. These fractures may go on undetected, and recover with only a little soreness or tenderness at the site for a time, without a knowledge of the true nature and extent of the injury, or until symptoms arise calling attention to disease of the surrounding structures or of the bone itself, when the fracture may then be discovered.

They may not be recognized at the time of injury, because of so little displacement and the absence of easily detected crepitus; because of insufficient thoroughness in the examination on account of the pain and soreness thereby produced, or lack of expertness in the examiner; or there may be so much swelling when the case is seen and the displacement and other symptoms so much wanting, that, after careful examination, some cases will yet remain undetected. In incomplete fracture, as that so often occurring in children, the deformity may be so insignificant, and in the absence of crepitus, that it may escape detection in rare cases by the most expert surgeons.

If the patient is in moderate health and the degree of ordinary care exercised in the management of the injury, a large majority of these cases make good recoveries, and in many the fracture is never discovered; but there are other cases, whether from fault of the system, from carelessness in regard to the management of the injury, or sometimes from gross neglect, a subsequent accident or some other unknown cause, that have unpleasant and sometimes serious results.

We are sometimes invited to examine a patient for some trouble of the leg, arm, or forearm, and find a more or less local swelling, acute or dull aching pain, tenderness and throbbing; the swelling may be hard or soft, and fluctuating; there may or may not be marked constitutional disturbance. If pus has formed—and usually it has—there will in a majority of cases be fever, etc. Upon inquiry we will be able to elicit the history of an injury sometime previous; this injury may or may not have received surgical attention, but after a day or two, of pain

* Read before the North Texas Medical Association, June, 1891.

and soreness—which may then subside—and there seems to be no further trouble except weakness and an indisposition to use the limb. Very soon, however, the point of injury will become more tender, there will be a little swelling, and this will increase each day until fever appears, the pain and soreness increase, the constitutional disturbance may be considerable, and rigors with perspiration announce the advent of suppuration.

Roswell Park, in a recent and most instructive and interesting lecture on surgical pathology, delivered at the College of Physicians, of Philadelphia, declared that "we are prepared to make the brief and explicit statement that, clinically, at least, we have no suppuration except such as is produced by bacteria; in other words, that pus is a product of parasitic origin." And Senn, in his new work, *Principles of Surgery*, states that "the brilliant results which have been obtained by the antiseptic treatment of wounds make it exceedingly probable that all wound-infective diseases are caused by living micro-organisms," and again in the same chapter "it requires no longer any arguments to show at this time that all inflammatory wound complications—among them suppuration—are without exception caused by the introduction into the tissues of specific pathogenic microbes." He also states that "an abscess which develops in tissues debilitated by a contusion or some antecedent lesion usually reaches greater dimensions than if it occur in otherwise healthy tissues," and then we find Holmes making the following statement: "the inflammation is evidently infective, for it has a tendency to spread not only along the periosteum, but through the connective tissue of the Haversian canals to the medulla, which is often seen in these cases to be in a condition of diffused suppuration." Therefore, it cannot be doubted now that the weight of authority ascribes all suppurative inflammation to living microbes, and while they exist in the part the disease is liable to and generally does spread.

In these cases of suppurative inflammation following a fracture that has not been detected, it is usually difficult to find out just where the nidus of infection was established and the point where the inflammation began, whether in cellular tissue, a diseased blood-vessel, periosteum, or the fractured end of the bone proper. It may be that at the point of fracture, by some slight movement of the ends, a loose spicula of bone or contusion of tissue irritates the parts and thus lights up the trouble. In fracture, even though it be partial and the displacement be ever so

slight, there is a localized disturbance of tissue function; there may be slight hæmorrhage, and though it may be slight and quickly arrested, there follows blood stasis, dilatation of the capillaries, nutrition is arrested, infiltration and inflammation ensues, and the parts are favorable for the action of pathogenic micro-organisms. It probably begins most frequently in the cellular tissue and extends to the surrounding parts, or it may begin as a periostitis and extend to the bone, destroying its structure and the surrounding tissues as well, and, indeed, may result in that dread disease osteo-myelitis. The inflammation most frequently begins at a single point, but it does sometimes originate at two or more points simultaneously; in the latter case it spreads much more rapidly.

Sometimes extensive bone necrosis has taken place before the case has been observed, perhaps the entire bone may be involved and any other contiguous bones.

Suppurative inflammation following an undetected fracture is much more likely to occur in unhealthy subjects. Syphilis, tuberculosis, chronic malarial poisoning and a debilitated system favors the development of suppuration. Malarial toxæmia is especially prone to develop it when a bone has been wounded.

There may be a suppurating surface in some other part of the body and microbes entering the circulation of the blood or lymphatics find a lodgement at the seat of fracture where the tissues have been contused and become infiltrated, not able to resist the infective action and thus precipitate suppuration.

The diagnosis is not difficult for there are usually well marked symptoms of pus formation.

The general constitutional disturbance, fever, rigors, perspiration, coated tongue, probably constipated bowels, restlessness, frequent pulse, pain in the part, swelling, sometimes discoloration, tenderness and fluctuation all tell in unmistakable terms the doleful tale.

The condition of affairs with such a train of symptoms must not be mistaken; prompt recognition is all important and treatment should not be delayed. A limb and even a life may depend upon prompt and decisive action and this is all the more imperative if there should happen to be osteomyelitis, for here radical measures only will promise any favorable results.

The indications are generally clear. If we see the case before the formation of pus and symptoms point to a periostitis or deep

tissue infiltration, then in my judgment deep incision through the periosteum under an antiseptic and anæsthetic, and an antiseptic solution brought in contact with the exposed surface, full vent given to any pent up serum or blood, a drainage tube passed in and the parts covered with antiseptic gauze; if supuration has already begun the incision should be made through the suppurating surface in such a way that its bottom can be reached, all pus washed out thoroughly, irrigated with a hot antiseptic solution and well packed with antiseptic gauze through which issues a drainage tube. All pus microbes should if possible be destroyed, the cavity washed out frequently and the surrounding parts kept in an aseptic condition. If dead bone be present it should be removed, scraped away with gouges and chisels, resection when indicated, if this is not effectual the entire bone may be taken away leaving the epiphyseal ends if healthy and as much periosteum as possible. If the parts can be rid of all sources of infections, kept sweet and clean absolutely, it is surprising how rapidly the work of reparation proceeds and what good results are sometimes obtained in very unpromising cases; but I repeat the chief object is to be sure of getting rid of the pus microbes; everything else are but adjuncts and unless this be accomplished we will have many failures and some sad disasters. Then everything in the way of dressings, the hands, instruments, the parts, applications, water, &c., must all receive antiseptic treatment; in this bacteriological era this antiseptis must be thorough, nothing else will be acceptable, and the times demand it.

A little carbolized water, the hands washed with simple unboiled water, the ligatures saturated in a carbolized solution for a few moments, dirty sponges, unclean bandages and drainage tubes and all called antiseptic treatment in this day will not be tolerated. The surgeon who proceeds to dress a wound in such a way may be held personally responsible for any bad results and subject himself to the liability of a suit for malpractice.

Rest is necessary to both part and system in bad conditions, rest to the part for a time at least under all circumstances will be required. So much for the local treatment. Of no little importance is the addition of constitutional treatment and we must be guided in this by the conditions we find. If it be a strumous subject he will require special treatment for that diathesis, if a syphilitic or antisyphilitic treatment will be required to

meet the demands. If suffering from malarial infection appropriate special measures for the disease must be had recourse to. In all cases no matter what the complication or if there be no complication, it will be found necessary to maintain the secretions in proper condition and by special diet and tonics to build up the general system and have the various organs perform their functions.

THE USE OF ATROPIA SULPHAS IN DISEASES OF THE EYE.

BY ARTHUR D. MANSFIELD, M. D.,

ASSISTANT SURGEON IN THE PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL, BALTIMORE, MD.

If there be any class of drugs that is essential to the ophthalmologist it is that class of drugs known as mydriatics, and standing preëminent in the class is atropine, the active principle of belladonna, given to us in the form of the sulphate, a salt readily soluble in definite proportions and to any extent.

Should the specialist in eye diseases be asked to surrender all but one drug, and retaining but one, continue the practice of treating affections of the eye, I think most certainly the drug retained, would be a solution of atropia, or should the value and worth of the mydriatic appeal to us in another way—having a very limited knowledge in diagnosing eye affections, and being unable to tell just what was the matter with an eye which should fall under our observation and care, and some doubt exist as to what should be done. I think a safe and sure rule to be observed would be to instil in such an eye, a solution of atropia.

The importance and value of the mydriatic in the treatment of eye diseases is incalculable. It would not perhaps be without interest to enumerate some of the uses of atropia.

In the use of atropia we see its manifold applications, in the first place its value in diagnosis is well known, if upon ophthalmoscopic examination the fundus appears cloudy, either from degeneration of the vitreous humor, or senile, or traumatic changes in the lens, or the cornea become opaque, the instillation of the atropia solution enlarges the pupillary orifice, and enables the ophthalmologist to obtain a better view of the fundus.

If again the pupil be contracted from

various causes, the use of a mydriatic is brought into requisition. Again, in cases where there exist posterior synechias with either partial or entire occlusion of the pupil denoting an old iritis, the use of the mydriatic is very valuable, or if the adhesions have been severed at the time of the iritis, the use of the mydriatic at a subsequent date *i.e.*, when the iritis has disappeared as far as outward signs are concerned will reveal the plastic exudations adherent to the anterior surface of the crystalline lens.

The mydriatic is useful again in diagnosing the extent of the development of senile cataracts. Should the use of atropia be taken from us as a diagnostic means, important as it is, yet we would suffer a greater loss in the want of a mydriatic as a curative agent to many of the graver affections which assail the eyes.

It is as a mechanical agent, perhaps more than any other property; for a mydriatic must be considered as a mechanical agent, that atropia finds its greatest use and marks its most brilliant results in eye work.

When we see a case of iritis the main indication as far as preservation of sight is concerned, is the removal of the iris from its apposition with the lens, thus preventing the adhesion of the two opposing surfaces and allowing the vessels to disgorge themselves and remove lymph and other plastic material thrown out. In wounds of the cornea with escape of the aqueous humor, the iris and lens coming in contact with open wounds of the cornea subsequent adhesions perilous to future vision would follow, were not a mydriatic instilled, thus separating the parts while the parts could be divided. We see a valuable use of atropia in all cases of operations upon the iris where we wish to keep the iris from attaching itself to the lens.

Not to weary my readers, I will pass on, only mentioning a few of the remaining uses. Occasionally we see the importance of a mydriatic such as atropia in cases of hypermetropia with internal squint and more or less amblyopia in the crossed eye, in many cases the strabismus disappearing and emmetropia resulting in not a few cases. The use of a mydriatic in testing errors of refraction revealing latent astigmatism and hyperopia and other uses show the value of atropia to the eye specialist. But is atropia and its use restricted to specialists? By no means, else would I not write this article. The general practitioner depends upon the specialist as much as the specialist depends upon his fellow practitioner. There is no reason why the general practitioner should not do as

much good, and sometimes more good, with atropia as the specialist can, I say the general practitioner can sometimes do more good with the judicious use of atropia than the specialist can. E. G., seeing a case of iritis, the early instillation of atropia sulphas in a solution, gr. iv, 3j., will prevent adhesions that only a subsequent iridectomy can sever in many cases, and then only partial recovery of sight.

To bring my article quickly to an end I will speak briefly of its contra-indication. Atropia and mydriatics do good in most eye affections and perhaps the rule may be a good one to state that you can do no harm in using atropia, yet there is one condition in which the use of a mydriatic causes positive injury to the eye and rapid and hopeless impairment of vision, it is to this irreparable loss of sight and danger to the eye that I wish to caution any of my readers who may considers it necessary to pay heed.

In cases of glaucoma where the eye-ball is tenser and harder than usual, accompanied by pain (not always though,) and no apparent redness of the parts of the eye, a gradual contraction of the field of vision, pitting of the disc spectra of light about artificial lights, etc. In this condition mydriatics are contra-indicated and myotics, such as eserine, are clearly and positively indicated. With this one injunction upon the use of atropia, I recommend to the use of the general practitioner that valuable drug.

SOCIETY REPORTS.

SECOND TRIENNIAL MEETING OF THE
CONGRESS OF AMERICAN PHYSICIANS
AND SURGEONS, HELD AT WASHINGTON,
SEPTEMBER 22, 23, 24,
AND 25, 1891.

GENERAL SESSION, WEDNESDAY.

(Continued from page 538.)

The first paper read was on

THE LATE MANIFESTATIONS OF SYPHILIS,
by P. S. Conner, M. D., of Cincinnati, Ohio.
Dr. Conner said that more than any other disease, not excepting tuberculosis or cancer, syphilis is the common meeting ground of us all—physicians, surgeons, obstetricians, spe-

cialists, pathologists, sanitarians. Modified by transmission through a dozen generations, it is still a dreadful and dreaded ill. Were there only the early lesions, syphilis would take place among the minor ills, and this is the history in the large proportion of cases. Probably in three or four out of five of the acquired cases, the disease is short-lived and does but little damage. There is, however, no means of saying in any individual that in a few months or years the disease will be eliminated. Those syphilitic by inheritance suffer from late lesions in far greater ratio than the acquired cases.

There is no sharply defined line between the early and the late constitutional symptoms. Speaking generally, the late lesions are neo-formative, the early hardly ever so; so that the gumma is the sign and seal of the tertiaries. Further, they are not communicable. As a rule, they are quietly developed. No region or organ is exempt from invasion with resulting new growths. Of most frequent occurrence are the affections of the bones and of the nervous system. The lesion of the bone may be single or multiple. The symmetrical involvement of bones is exceptional. Liquefaction is rarely observed, and suppuration only an accident. As ordinarily seen at the present day, extensively destructive and deforming bone inflammations are almost confined to the head and the nasal regions. The reason of this is probably the exposed position of the bones, the thinness of some of them, the abundance of small vessels, and the intimate fusion of mucous membrane and periosteum. In the adult and acquired there is seldom difficulty in recognizing the specific character of the lesion.

Though a large proportion of chronic bone and joint disease in the child, the adolescent and the young adult is tubercular, yet the cases in which it is syphilitic are by no means few. This may be recognized by the location of the disease, by recognition of traces on the cornea, the teeth, and the skin, by application of the therapeutic test and, when practical, by inoculation.

The most frequent and the most dangerous lesions are those of the nervous system. Dr. Horsley, in speaking of cerebral gumma, declared that "medicinal treatment in no wise cures, and only very temporarily alleviates the trouble. . . . Excision offers the only chance for the patient." Is this the fact? Has not more than temporary alleviation followed the use of the iodides? However great the advances of brain surgery in the last few years, would not the outlook of the syphilitic be worse than it is, if only in the removal of

the gumma could be found a chance of recovery? The affections of motion, sensation and intellect are frequent in the order given. The first at some time and in some degree is present in every case. Hysteria may mean syphilis. It is infrequent in men, while brain syphilis is rare in women. In brain syphilis, paralysis is more common than convulsions. Sensation frequently remains unaffected. Disturbances of intellect are almost necessarily associated with any brain lesions.

In certain cases, although rare, marked motor, sensory and intellectual disturbance occur suddenly and together. Ordinarily after sleep the patient is found in a state of stupor, from which it is possible to rouse him partially. The muscles are relaxed. The pulse rate is decidedly lessened, the breathing is slow, and the temperature is subnormal. Under mercurial treatment, promptly and persistently maintained for many months, relief even permanent may be expected and secured.

Spinal lesions are of infrequent occurrence. Exostoses of the spinal canal may occur and neoplasms develop. There may be pain and paralysis affecting different parts according to the location of the lesion. A question of much interest is the causative relation of syphilis to locomotor ataxia. That the majority of ataxics have had syphilis cannot be questioned. Tabes is certainly not of true gummatous origin. Nor can the sclerosis be regarded as the result of the diffused formation so often found in the cerebro-spinal axis. As in other parts of the body syphilitic treatment generally fails to cure or even to retard the evolution of symptoms.

There are many things about late syphilis that deserve careful study. What is the explanation of the long years of intermission with the after development of grave functional and organic disturbance? Where has the disease been lurking all these years?

What are the relations of syphilis to other diseases and to injuries? Pre-existing tubercular disease renders probable a more severe and often a more rapid syphilitic course. To the "strumous" individual the specific infection is more dangerous than it is to others. That specific lesions may become tubercularized has been proven, but only rarely does the tubercle bacillus find a nidus in and about a syphilitic new formation. Syphilis is not likely to be inoculated on a person suffering with cancer, and if it is there is no good reason why the two diseases should not each go on in its natural way. On the other hand, cancer may and not so

very rarely does attack an area in which there has long been specific thickening and induration, as in the chronic leucomata of the tongue. Once in a while a gumma undergoes cancerous degeneration, more often when situated in the tongue than elsewhere. The local affection, no longer amenable to specific treatment, goes on steadily from bad to worse. In certain localities, especially in the breast, a gumma may readily be mistaken for a cancer. If syphilitic growths do not become sarcomatous, they often resemble sarcomata, and many reported successful operations for the malignant affection has been really one in which a gumma has been removed.

As a rule, the wounds of syphilitics, when the disease is in a latent stage, heal as promptly as in other cases, although union may be delayed or even prevented until after the patient has been brought under the influence of the anti-specific remedies. This is less true of wounds of the soft parts than that of the hard parts, as fractures, where, at times, false joints will form in spite of the most judicious treatment. When the specific lesions are in the process of evolution, the chances of interference with proper repair are not few, and no operation should be done at this time which can be postponed. I deem, at any time before doing an operation, the success of which depends on primary union, it is well to keep the patient for several weeks under the influence of the iodides and mercurials. Very rarely does any wound become actually syphilitic. In one who has had the disease, although there have been no manifestations for years, any traumatism may be the starting point of extensive specific lesions.

In very many cases of aneurism, under forty years of age the lesion may be consequent on syphilis.

The mortality rate of acquired syphilis is rare. In its inherited form the disease is a very grave one. Four-fifths of the pregnancies terminate prematurely.

Dr. Abner Post, Boston, co-referee said: In speaking of syphilis he spoke from the standpoint of the clinician and student and not from that of the pathologist. He called special attention to what is known as late hereditary syphilis. This relates to those who have inherited the disease and only after a lapse of years show symptoms corresponding to the tertiary symptoms of acquired syphilis. The later forms of acquired syphilis are not necessarily a part of the case. The so-called late lesions occur much earlier in the history of the disease than we are in

the habit of thinking. After the third year the chances of a recurrence grow steadily less. As a preventive of late symptoms early treatment by mercurials must be ranked high but no method will allow us to promise a cure that is absolute immunity from subsequent attacks.

The different systems were taken up in order. Induration and enlargement of the lymphatic glands is one of the common symptoms of early syphilis. In late hereditary syphilis the part played by the lymphatics is great.

Cutaneous lesions are second in frequency to the lesions of the nervous system in late acquired disease.

Diseases of bones were next referred to. A difference between tuberculosis and syphilis lies in the preference for syphilis for the long bones and their shafts, while tuberculosis attacks by preference such bones as those of the wrist and ankle. Disease of the joints are at times undoubtedly the result of syphilis.

Reference was next made to intestinal and gastric symptoms in syphilis. It is fairly well established that very serious lesions of the gastro-intestinal tract may take place. As one of the possible causes of disease of the ileo-cæcal valve, syphilis must be given a certain amount of consideration.

In diseases of the nervous system there is a large field which lies practically unexplored in congenital syphilis.

An interesting question is, "How much influence should a negative history have in a doubtful case?" There are many cases in which the existence of syphilis is not known by the patient.

Every prognosis must be a matter of special consideration. It is the persistence of the damage and not the specific lesions that cause the persistence of the symptom. There is something to be deducted in the matter of treatment. Anti-syphilitic treatment has great power over the active process late lesions, but it is powerless to restore the tissue already destroyed. The attempt to destroy a syphilitic tertiary sore is in general futile. The late lesions of inherited syphilis are as readily controlled as those of acquired disease. The amount of iodides that may be administered is very large. In regard to the treatment as an aid in retrospective disease too much value must not be placed upon this element in doubtful cases, for mercurials and iodides do have some influence over tuberculosis.

The study of syphilitic phenomenon is a necessity of medical progress. The possi-

bility of syphilis renders uncertain the diagnosis of tuberculosis and cancer, and other malignant forms of disease. We need the most careful clinical studies; we need Hospitals specially devoted to syphilis; we need to make its study obligatory.

The subject was further discussed by Dr. Robert T. Edes, of Washington and Dr. James Nevins Hyde, of Chicago.

Adjourned.

THURSDAY.—DISCUSSION ON FIBROID PROCESSES [CHRONIC INTERSTITIAL INFLAMMATION SCLEROSES] THEIR PATHOLOGY AND ETIOLOGY WITH ESPECIAL REFERENCE TO THE INFLUENCE OF DIATHESIS AND HEREDITY.

The discussion was opened by Dr. A. L. Loomis, of New York.

Fibroid processes cannot be spoken of as degenerations for they imply an active process productive in character. There is always a higher than normal grade of activity in those elements which develop connective tissue. The only way in which fibroid tissue can develop is from growing cellular elements. He excluded from the list of the fibrosis all conditions of simple preponderance of fibroid tissue from the atrophy of other elements. Two forms of fibrosis were described at length, the hyperplastic and the inflammatory. The first is due to diminished nutritive supply to parenchymatous atrophy, to nuclear proliferation and to connective tissue hyperplasia. The inflammatory form is due to parenchymatous degeneration, to constitutional influences and to local attraction by the products of tissue change, positive chemotaxis.

All those agencies which diminish the vital forces by which the cell appropriates to itself its proper elements, tends to the production of fibrosis. These agencies may be mechanical, chemical or mental. Among the causes of fibroids may be mentioned direct stimulation of fibrous growth, all conditions including a limited degree of nutritive supply, all conditions and elements which induce perverted nutrition, either degeneration or necrosis including mechanical forces, perverted or defective nutritive supply, and all toxic and trophic influences.

The relation between diathesis and fibroid processes were next considered. A diathesis may manifest itself by any bodily function

displaying an activity out of proportion to the stimulant applied. In the fibroid diathesis the growth of fibroid tissue is out of proportion to the amount of stimulation. Fibroid processes are not always injurious as is seen in cases of cured tuberculosis. In seventy cases of cured tuberculosis under the observation of the writer, fifty-four presented well marked evidences of fibrosis. Diathesis often determines the nature or prominent action which will follow any given irritant or stimulation, provided more than one is possible. It also modifies the ratio between the established process and its causes.

The speaker next referred at length to the special manifestation of the fibroid process in the arteries, heart, kidney and liver.

Dr. William Osler, of Baltimore, considered the fibroid process under the head of degenerative, inflammatory and developmental. The degenerative were subdivided into the atrophic, the secondary degenerations, the toxic forms as from lead, ergot, syphilis, the sclerosis associated with similar changes in the smaller arteries and capillaries. The degenerative form includes the greatest number.

The inflammatory form was subdivided, the secondary forms in consequence of reactive inflammation following hemorrhage, tumors, foreign bodies, abscess and trauma, the scleroses which follow primary encephalitis or myelitis.

The following questions were suggested for consideration:

1. What is the relation of vascular change to the degenerative scleroses? How far histologically are they mesodermal or ectodermal, or are they mixed, containing both neuroglial and collagenous connective tissue.

2. The lobar scleroses of children. What is the nature of the primary affection? Is it inflammatory? An encephalitis or meningencephalitis or is the essential lesion in the vessels.

3. Developmental. Can we recognize a purely ectodermal form?

Dr. Charles L. Dana, of New York, referred to the chronic fibroid processes of the spinal cord. He classed these into—first, primary degenerative; second, secondary degenerative; and third, reparative and inflammatory. The first includes locomotor ataxia, lateral scleroses, combined scleroses, progressive muscular atrophy and amyotrophic sclerosis. These scleroses are not inflammatory but due to the destruction primarily of cells and fibres. The causes of this degeneration were either toxic substan-

ces or disturbance of nutritive equilibrium by infectious vascular strain or imperfect nutritive supply. They are not related to any special diathesis.

The secondary fibroid processes, so-called, have been shown by French pathologists to be probably in great extent neuroglial proliferations or gliosis, not a fibrosis.

The inflammatory scleroses, including chronic myelitis, diffused myelitis and transverse myelitis are mixed processes composed of a simple necrotic process, inflammatory processes and secondary degenerations.

Dr. William Councilman, Baltimore, referred to the fibroid process as found in the liver, giving the results of investigations made in the Johns Hopkins Hospital. He dwelt upon the fact that the first element in the fibroid process was a necrosis. The fibrosis is not the result of stimulation. The tendency to growth is always present and as soon as the opposition is removed it manifests itself.

The Congress then adjourned *sine die*.

SELECTED FORMULÆ.

FOR TENDER FEET.

Tramps, either amateur or professional, who suffer from sore feet after an unusually long walk, will experience great relief from soaking the feet once or twice a week in a half-pailful of hot water to which a piece of nitrate of potassium the size of a small walnut has been added.

PARSONS' LOCAL ANÆSTHETIC.

R Chloroform.....	12 parts.
Tinct. aconite.....	12 "
Tinct. capsicum.....	4 "
Tinct. pyrethrum.....	2 "
Oil cloves.....	2 "
Camphor.....	2 "

Dissolve the camphor in the chloroform, then add oil of cloves and then the tinctures. The venerable Dr. Parsons, in sending this formulæ for publication, says: "I cannot expect to remain much longer in this world, and I want the profession to know the value of this local anæsthetic."—*Southern Dental Journal*.

EXALGINE IN NEURALGIA.

Dr. T. R. Fraser has found this remedy very efficacious in production of anaesthesia, especially in neuralgia. The dose varies from a six centigrammes (one grain) to a gramme (fifteen grains) in twenty-four

hours. The following formula is recommended by him:

R Exalgine.....	2.50 grammes.
Peppermint water.....	5 "
Orange syrup.....	30 "
Distilled water.....	120 "

S.—A teaspoonful twice a day.

—La Presse Médicale Belge.

In case the peppermint taste be disagreeable to the patient, the following formula recommended by Dujardin-Beaumetz, may be employed:

R Exalgine.....	2.50 grammes.
Tinct. orange peel.....	5 "
Distilled water.....	120 "
Syrup orange.....	30 "

S.—A tablespoonful morning and evening (0.25 grammes), 4 grains of exalgine.

—Deutsche Med. Zeitung.

GONORRHOEA.

Thomas R. Neilson states that the plan of internal treatment which he has pursued for so many years past, consists, first, during the earlier stages of the disease, in the administration of an alkaline sedative mixture, with the purpose of alleviating the scalding caused by urination, the tendency to frequent micturition and to chordee. The standard formula in his dispensary practice has been.

R Potass. acetat.....	3 drachms- $\frac{1}{4}$ ounce.
Potass. bromid.....	1 $\frac{1}{4}$ drachms.
Acid boric.....	2 drachms-2 scruples.
Tinct. belladon.....	30 minims.
Liq. potass. citrat.....	8 ounces.

M. Sig.: A teaspoonful in water every three or four hours.

Secondly, as soon as the symptoms are in a measure relieved, the administration of either oleoresin of cubebs and balsam copaiba in capsule, or cubebs alone in powder, in teaspoonful doses, or finally, where chordee is troublesome, a combination of two parts by weight of powdered cubebs and one part of bromide of potassium, given in the same doses, and from three to four times daily.—*Univ. Med. Mag.*

FOR HAY FEVER.

L'Union Médicale recommends the following snuff for hay fever:

R Acid boric. pulv.....	gramme 2.5.
Natr. salicyl.....	gramme 2.5.
Cocain mur pulv.....	gramme 0.12.

M. Sig. For snuff.

For the eye symptoms a solution of sulphate of copper or sulphate of zinc, for a wash, 10 drops of iodide of ethyl or 3 drops of nitrite of amyl may be inhaled at the onset of an attack, and the patient sent to a different climate or place.

TO REMOVE THE ODOR OF IODOFORM.

While there are several preparations that will remove the odor of iodoform from the hands, the most of them merely substitute an almost equally unpleasant odor. The *Deutsche Medizinal Zeitung* claims that washing the hands in linseed meal and water, once or twice, will cause an immediate disappearance of the odor of the drug.

IN ACUTE BRONCHITIS.

A simple expectorant mixture in acute bronchitis is:

R Ammon. muriat.....℥ss.
Mist. glycyrrhiz. comp.....℥iv. M.
Sig. Take a dessertspoonful every four hours.

The dose is smaller in the extremes of life, and in severe coughs it is given every three hours.

Tablets of the muriate of ammonium and the compound licorice mixture are very efficient. When the secretions are with difficulty brought up, the use of senega is advised.

When the secretions are abundant and not easily coughed up, turpentine in emulsion is an excellent remedy, not so pleasant, perhaps, as terebene or terpine hydrate, but rarely failing to do good in properly selected cases. The formula, with occasional modifications to suit particular cases, is:

R Ol. terebinthia℥ij to ℥iij.
Mucil. acacia.....℥s.
Aq. cinnamon.....℥j.
Aq. q. s. ad.....℥vj. M.
Sig. A tablespoonful in a little water every four hours.

Ofttimes the cough is of such an irritating character that these ordinary expectorant mixtures avail little; then recourse must be made to a narcotic in some form. Codeine, a very useful alkaloid of opium, has the advantage of not constipating as much as morphine. A good combination is:

R Codeinæ sulphat.....grs. viij.
Syr. prun. Virginian.....℥ij. M.
Sig. A teaspoonful in a little water three or four times a day and at bedtime if necessary.

—*Therapeutic Gazette*, July, 1891.

"ACTINA."

Prof. Flavel B. Tiffany, says the extensively advertised "Actina" has this composition:

R Menthol crystals.....℥j.
Alcohol.....℥ss.
Ether sulph.....℥j.
Oil mustard.....℥j.
Sponge sufficient to make.....℥j.

Or

R Menthol crystals.....℥j.
Ether hydrobromic.....℥j.
Oil mustard.....℥j.
Sponge sufficient to make.....℥j.

—*Kansas City Med. Index*.

AMENORRHOEA.

The following is recommended as a reliable emmenagogue in many cases of functional amenorrhœa:

R Bichloride of mercury.....
Arsenite of sodium, aa.....gr. iij.
Sulphate of strychnine.....gr. jss.
Carbonate of potassium.....
Sulphate of iron, aa.....gr. xlv.
Mix and divide into sixty pills. Sig.: One pill after each meal.

—*Revue Med. Chir. Mal. Femmes*.

HÆMORRHOIDS.

Preissmann (*Fort. der Krank.*) recommends the application of pledgets of cotton soaked in the following:

R Potassii iodidi.....℥ss to ℥j.
Iodi.....gr. iij to gr. xv.
Glycerin.....℥j. M.

OIL OF TURPENTINE.

Oil of turpentine is administered in France preferably in the form of *Recamier's emulsion*, which, according to the *Pharmaceutische Zeitung*, is as follows: Oil of turpentine, g. 12; egg yolks, No. 2; syrup of mint, g. 64; syrup of orange flower, g. 32; syrup of ether, g. 22; tincture of cinnamon, g. 2.

THE HYPODERMIC USE OF QUININE.

The statement was lately made at the *Société de Pharmacie* that Dr. Laveran had renounced his habit of prescribing lactate and hydrochlorate of quinine for hypodermic injections. Taking advantage of the property possessed by antipyrine of aiding in the solution of the salts of quinine, he now employs a formulæ composed of 1 gramme of hydrochlorate of quinine, 50 cg. of antipyrine and 2 grammes of water. He says that these solutions give no pain whatever, while those of the hydrochlorate alone, or the lactate alone, have usually caused a certain amount of trouble.

A PURGATIVE FOR CHILDREN.

R Castor oil.....℥iv.
Infusion of coffee.....℥j.
Powdered sugar.....℥v.
Yolk of egg.....No. j. M.

Make an emulsion.—*L'Union Médicale*.

A STIMULATING EXPECTORANT.

R Ammon. carbonat.....gr. v.
Tr. Nuc Vomica.....℥j.
Tr. Scilla.....℥ss.
Inf. Serpentina.....℥j.
M. Sig. Three times a day.

—*Fothergill*.

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wrapper which will fit it.

When it is desired to call our attention to something in a
newspaper, mark the passage boldly with a colored pencil, and
write on the wrapper "Marked copy."

The Editor will be pleased to get medical news, but it is im-
portant that brevity and actual interest shall characterize com-
munications intended for publication.

LEADING ARTICLE.

THE CHOICE OF AN ANÆSTHETIC IN OBSTETRICAL PRACTICE—THE PRO- PER TIME FOR ITS ADMINISTRA- TION AND THE METHOD OF ADMINISTERING.

Relative to the choice of an anæsthetic in labor we have two principal drugs to deal with—ether and chloroform. The former is the more stimulating, but it is bulky, inflammable, and not infrequently irritating to the lungs; chloroform, on the other hand, is sedative, more agreeable to the taste, more concentrated and powerful, and requires a less amount to cause analgesia or anæsthesia. For these reasons, chloroform is justly considered to be the agent *par excellence* in producing obstetrical anæsthesia. This is true, however, only of its use as an analgesic (Lyman). When complete anæsthesia is required for the graver operations of midwifery, ether should be employed.

In reference to the time at which the anæsthetic should be given, chloroform, ordinarily, should not be administered during the first stage of labor, partly because of its tendency, when given at too early a period, to weaken the contractions of the uterus, and partly because protracted anæsthesia has a tendency to impair the cardiac force (Lusk). There are, however, numerous exceptions, as for instance, when patients suffer more severely during the first stage than during the second. In point of fact, the time for the use of these agents should depend largely upon the individual peculiarities of each case, remembering that the object desired is the alleviation of pain by *anæsthesia*, and not the production of *narcosis* through a determination to abolish pain altogether. According to Dr. Lyman, and other authorities, the unfavorable results which are often ascribed to anæsthesia during an early period of labor are due to an altogether *excessive* use of the anæsthetic.

In the major operations of obstetrical work, when profound anæsthesia (narcosis) is required, ether, as previously stated, should be employed, and its administration is to be

conducted on the general principles observed in its employment for other surgical purposes.

In normal labor, chloroform is manifestly preferable, and the mode of its administration for this purpose differs materially from that employed for surgical anæsthesia. While the one is a continuous state of partial anæsthesia in which the influence of the agent is slight and readily passes off, the other is a regular progressive process carried steadily to a definite point, the patient being so profoundly narcotized that a return to consciousness requires considerable time. The open method of exhibition is the better.

At the beginning of each pain the patient should be directed to take a number of deep inspirations, the anæsthetic being kept at a little distance from the mouth. By this means, according to Dr. W. T. Lusk, the patient is prevented from inhaling an undue amount of the anæsthetic during the expiratory efforts which are put forth in the acme of the pain.

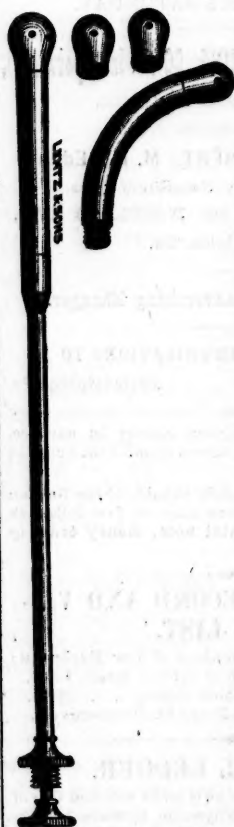
The chloroform should be used in small quantities at a time—the additions being made drop by drop. Continued attention should be paid to the general state of the patient during the use of the agent, remembering that success in the management of obstetrical anæsthesia requires the most scrupulous care and incessant watchfulness, as well as considerable skill upon the part of the anæsthetizer.

THE PHARMACY OF IODOL.

Dr. Tronchet lately communicated to the *Bulletin Médical* his views as to the pharmacy of iodol, which he thinks should be employed with olive oil. In quantities of 10 to 150 it makes a clear and elegant preparation. He gives the following formulæ: Emulsion—Iodol, 1 gram; neutral glycerin, 10 grams; water, 20 grams; gum acac., 2.50 grams. Solution—Iodol, 10 grams; olive oil or oil of sweet almonds, 150 grams. Crayons and Bougies—Iodol, 50 cg.; lanolin, wax and gum, of each 25 cg. Ointment—Iodol, 1 gram; vaselin, 10 grams. Dr. Tronchet says he has tried all the formulæ and prefers the above.

CORRESPONDENCE.

A NEW INSTRUMENT FOR THE APPLICATION OF OINTMENT TO THE MALE URETHRA.



TO THE EDITOR OF THE MEDICAL AND SURGICAL REPORTER:—I submit to you and your readers an instrument for the application of ointment to the male and female urethra. The cut shows the simplicity of the instrument. The barrels are interchangeable and fitted to different sized bulbs graduated from 18 to 22 American scale. If the ointment is very thin, it can be drawn up into the barrel, and if too stiff, remove the barrel and by repeated thrusts into the ointment it can be completely filled. When properly charged and introduced into the urethra, gradually withdraw the instrument and at the same time push the piston home, forcing the ointment

through the small openings in the bulb, thus distributing the ointment evenly over the dilated urethra. The ointment makes its exit through the largest circumference of the bulb, and therefore insures its thorough application. The instrument can, by removal of piston, be converted into an irrigator, for the thorough cleansing of the urethra.

Lentz & Sons made the instrument I am using, and I must thank them for the wood cut they have so neatly executed. The instrument is gotten up antiseptically and can be readily cleansed.

DR. D. W. BOONE,
Bellaire, Ohio.

Truth is mighty, but she is ignominiously worsted when she encounters a fishing excursion.

BOOK REVIEWS.

TABLES FOR DOCTOR AND DRUGGIST, compiled by ELI H. LONG, M. D., Professor of Materia Medica, Buffalo College of Pharmacy; Adjunct Professor of Materia Medica, Medical Department, University of Buffalo. Detroit, Geo. S. Davis, 8vo., 133 pp. Price, \$2.00.

The object of this excellent compilation is to bring into convenient form for ready reference information that is wanted daily by the physician and pharmacist. The work is divided into five parts: (1) a table of solubilities; (2) table of reactions and incompatibles; (3) table of doses and uses of medicines; (4) table of specific gravities, and (5) table of poisons and antidotes.

The table of solubilities treats especially of the solubility of the various substances in water and alcohol at 15° and 100° C., but also treats of all other solvents likely to be used by the physician or pharmacist.

The table of reactions and incompatibles is the distinctive feature of the book; no reactions are included that are not recognized by good authority or that are chemically improbable.

The table of doses furnishes what seems to be a complete list of medical substances now employed, with their doses and principal uses.

The table of poisons includes symptoms, toxic doses, treatment, and explanatory notes.

The compilation is an exceedingly valuable one, the book is well printed, and deserves a place in the library of every physician and druggist.

NOTES ON NEW REMEDIES, INCLUDING THOSE ON THE ADDITIONS TO THE BRITISH PHARMACOPEIA OF 1890, compiled by E. B. SHUTTLEWORTH, Dean, and Professor of Chemistry, Ontario College of Pharmacy; Lecturer on Pharmacy at Trinity Medical College, Toronto; Editor of the *Canadian Pharmaceutical Journal*, etc. Toronto: Monetary Times Printing Co., 72 Church Street, 1891. 16mo., 87 pp.

These notes have been compiled from original and secondary sources into a form very useful to the physician and pharmacist.

In treating of the various remedies, the chemical characters are first considered, then the general characters, then the properties and uses, and finally the method of administration.

The notes have evidently been carefully prepared, and the little book is printed with very clear type on good paper.

PERISCOPE.

THERAPEUTICS.

THE ABORTIVE TREATMENT OF GONORRHOEA.

The treatment of gonorrhœa in its early stages by strongly irritant injections, particularly those of nitrate of silver, at one time exceedingly popular, is now seldom applied by those most experienced in venereal diseases. This is because such treatment in practice was often ineffectual, and because when it failed the violence of the original attack of urethritis seemed to be greatly exaggerated. As a result of this increased severity and duration of inflammation, tight strictures were much more commonly observed than was the case when gonorrhœa was treated by less irritating injections. It was also claimed that epididymitis was a very common sequel of anterior urethritis treated by nitrate of silver. The latter statement has, however, been shown to be false.

There are, then, sufficient grounds for abandoning a treatment which is so uncertain as to its successful issue, and is liable to be followed by a condition more grave than that for the cure of which the remedy is applied. There have always, however, been a number of practitioners who steadfastly adhered to the abortive treatment of gonorrhœa by silver nitrate, and who could show records in proof of their statements that in suitable cases the method was followed by sufficiently satisfactory results.

It has lately been proved experimentally that silver nitrate as a germicide acts upon the gonococcus even more powerfully than bichloride of mercury, and the employment of this drug in weak solution has been advocated as an excellent continued treatment in gonorrhœa.

Both the gonococcus and nitrate of silver produce the same effect upon the urethral mucous membrane; that is, they cause a desquamation of the epithelium and an active inflammation of the deeper structures. The nitrate of silver, however, acts very rapidly—within a few hours—while the gonococcus requires several days to produce its full irritant effect. If, then, before the gonococcus has time to penetrate more deeply than the epithelium, an injection of silver is employed, it seems fairly reasonable to hope that it may not merely destroy the microbe, but may also cause it to be thrown out from the urethra by occasioning almost imme-

diately an active inflammatory discharge, which, from its owing its cause solely to a chemical irritant, may be expected to subside entirely in a few days. If, however, the gonococcus has had time to penetrate deeply within the mucous or submucous layer, further irritation cannot accomplish its throwing off, but will simply diminish tissue resistance, and all the pabulum of the invading microbe, thereby increasing its multiplying powers.

It seems clear, then, that the abortive treatment cannot be entertained except in the very earliest period of a gonorrhœa; that is, when the tickling at the meatus and the drop of clear or slightly clouded mucus denote that the epithelium is invaded. Picard, the ablest modern exponent of the abortive treatment, holds that a red meatus, with swollen, everted lips, a turgid glans and intense pain, constitute absolute contra-indications to this method of treatment, even if the case is seen early in its course.

The strength of the injection should vary from fifteen to twenty grains to the ounce of water. This produces a sufficient degree of irritation, yet is not strong enough to be followed by subsequent cicatricial contraction. The patient should first be instructed to urinate. Then the nozzle of a blunt-pointed syringe should be inserted into the meatus, the urethra should be compressed about two and a half inches farther back, so that the injection may not penetrate more deeply than is required, and the silver solution should be forced in so that all the urethra anterior to the point of pressure is fully distended. The solution should be retained a few seconds; it can then be allowed to escape by relaxing the pressure of the nozzle against the meatus. The anterior portion of the urethra should be distended and emptied till the syringe contains no more fluid. Urination should be postponed after this as long as possible.

According to Picard, the pain of this treatment is rarely severe. In a few hours there is a yellowish-white running, often blood-stained. This diminishes, becomes white, and in twenty-four hours is changed to a purely serous discharge, which entirely disappears in a few days. If the free discharge persists for from twenty-four to thirty-six hours, the treatment may be repeated, provided the parts are neither red nor painful.

The unfortunate part of this method is that patients rarely present themselves before the invasion of the urethra is too far advanced to admit of the abortive treatment. In suitable cases, however, it is a safer

method and gives fairly constant results.—*Univ. Med. Mag.*

THE TREATMENT OF NON-OPERABLE CANCERS BY MEANS OF INTERSTITIAL INJECTIONS OF PYOKTANINE.

V. Mosetig is reported to have presented before the Society of Physicians of Vienna (*La Tribune Medicale*, April 2d, 1891), several cases of cancer materially improved by injections of pyoktanine:

1. A woman with sarcoma of the lower jaw. After fifty injections (in all 120 grains of pyoktanine) considerable diminution in size of the tumor.

2. Sarcoma of the sternum. Only the fibrous stroma of the tumor remained.

3. A man, 58 years of age, suffering for eight months with sarcoma of the tongue and floor of the mouth. Result: removal of all bad odor and pain; the tongue has become again mobile.

4. Female, aged 47, with an epithelioma of the face. Twenty-seven grammes of pyoktanine used, with the result that the infiltration is less hard, several nodules have separated off; the general condition has much improved.

Amelioration was also obtained in a woman with cancer of the bladder and in a man with an adeno-cancer of the pelvis. In the former there was cessation of the hæmaturia; in the latter, the tumor diminished three-quarters in size. Mosetig recommends that the solution be made of the strength of one part pyoktanine to 500 of liquid; the injection, containing two to three grammes of the active substance, should be made at the periphery of the tumor on a level with the healthy tissue.

Under the influence of the injections, the pains are said to disappear, the tumor is observed to gradually diminish in size and to become in part sloughing, in part to soften and to undergo fatty degeneration and absorption. Billroth, on the other hand, had tried the staining fluids in about thirty cases without ever having observed absorption or diminution in offensive odor. Sometimes a softening of the tumor was seen, but it could be considered as due to an aggravation of the disease rather than to anything else.

In the same journal (May 21st), Mr. Quinn reported before the Chirurgical Society of Paris that he had used injections of pyoktanine in tubercular as well as cancerous cases. In the former, no result whatever was obtained, in the latter, slight amelioration.

In a case of epithelioma of the mouth, the injections were followed by very marked facial oedema. In a case of lympho-sarcoma of the thigh, ten injections were made. The centre of the tumor was softened, but not the slightest influence was exerted on the periphery.—*Jour. Cut. Gen. Dis.*

EUROPHEN.

This new antiseptic medicament designed to replace iodoform is obtained by the action of iodine upon isobutylorthocresol. Its pharmacology and bacteriology have been studied by Siebel, and its therapeutic action by Eichhoff.

Europphen is an amorphous, yellow powder, exhaling a slight odor resembling that of saffron. It is insoluble in water and in glycerine, and is more soluble than iodoform in alcohol, ether, chloroform and the oils. Europphen adheres better than iodoform to the skin and to open wounds, and an equal quantity of it by weight, will cover a surface five times greater.

This iodide of isobutylorthocresol is not toxic. Dogs were found to take 2 or 3 grammes of it with impunity and the human organism will bear 1 gramme of it without unpleasant phenomena save a slight feeling of weight in the stomach.

The urine of patients who had absorbed Europphen did not contain iodine.

Eichhoff employed it successfully in dressing both hard or soft chancres. He used it as a powder, and also in the form of 1 per cent. or 2 per cent. ointment. He furthermore employed it successfully in hypodermic injections for syphilitic patients suffering from the secondary and tertiary symptoms of syphilis. These injections consisted of 1 gramme of Europphen to 100 grammes of olive oil, and of this, one-half to one cubic centimetre was injected daily in one dose.

Eichhoff also employed Europphen in varicose ulcer and ulcerative lupus as well as in eczema, psoriasis and favus, in all of which it proved to be efficacious.

Ointments containing 1 per cent. to 2 per cent. of Europphen are as strong as need be used. Five per cent. ointments caused a certain amount of irritation.—*La Semaine Medicale*, July 29, 1891, *Repertoire de Pharmacie*, Aug. 10, 1891.

THE ACTION OF SULPHUROUS ACID ON THE ECONOMY.

The importance of a knowledge of the

effects of sulphurous acid on the human organism has been of late very much increased by the frequency with which this agent is now employed for the preservation of wine and vegetables. It is known that after animals have been poisoned by breathing air impregnated with sulphurous acid, the highly irritating properties of the gas are manifested by the injected state of the blood-vessels of the mucous membrane of the respiratory tract where the sulphurous acid has come in contact with it, the blood of the viscera being found dark and coagulated. Also that animals that are not killed recover very rapidly, but after a few days show signs of bronchitis and pneumonia, and die. The subject has recently been examined by Dr. L. Pfeiffer, who in some experiments employed sulphurous acid in the form of neutral sulphite of sodium, and not in the free state, so as to avoid the caustic action. He found that both warm and cold-blooded animals recovered very rapidly from an almost moribund condition, which showed that there must be either very rapid elimination or a chemical change into some harmless substance. Experiments instituted with the object of elucidating this point showed that 96.5 per cent. of the sulphite was eliminated by the kidneys as sulphate, the remaining 3.5 per cent. only as sulphite. When a large quantity of sulphite had been administered it was nearly all eliminated in five hours. Dr. Pfeiffer believes that when vegetable feeders are made to breathe air containing free sulphurous acid for some considerable time a reduction of the alkalinity of the blood is induced. In animals breathing air containing from one to three parts of sulphurous acid per thousand intense inflammation of the tracheal and bronchial mucous membrane was produced, also inflammatory foci in the tissue of the lungs, the blood in the capillaries becoming black and coagulated. Injections of a 5 per cent. solution of sulphurous acid into the stomach set up very extensive and severe gastritis, not only all the coats of the stomach itself being affected, but also the superficial portions of neighboring organs, as the liver and the diaphragm, death occurring in from three to five minutes. It is suggested that this rapid and far-reaching action may be due to the disengagement of the gas by the heat of the stomach, so that it diffuses itself much more rapidly than a liquid could do. Dr. Pfeiffer finds that in some wines there is as much as eight parts of sulphurous acid, probably as bisulphide of lime, in 100,000, and that in preserved vegetables, such as are used in the

army and on board ship, there is often a very appreciable quantity either free or combined with alkalis, this being especially the case with preserved asparagus.—*Lancet*.

A SUGGESTION FOR HYPODERMIC PURGATION.

At a meeting of the Louisville Medical Society, one of the members, Mr. Flexner, called attention to a comparatively new drug, the sulphate of eseridine, from the laboratory of Bœhringer in Germany. It appears that so far its use has been restricted to animals, on whom it acts, when injected subcutaneously, as a purgative. Should this action be reproduced in the human subject, we shall probably find a valuable addition to our Pharmacopœia. The principle of active purgation in any stage of peritonitis as an effectual means of draining the peritoneum is now very generally recognized. There are often difficulties, however, in the way of administering croton oil or other powerful cathartics by the mouth, especially where vomiting is already a pronounced symptom. As another speaker pointed out at the same meeting it is very desirable that we should have something as a purgative to act in a manner corresponding with apomorphia as an emetic. Certainly a drug that would act rapidly in the manner indicated, without undue depression of the nervous system would be invaluable in many conditions of the abdomen and pelvic organs. The suggestion is of very great interest and of possible future value, and surgeons who make the abdomen the field of their operations may find it worthy of careful attention. The mastering of all bodily functions, physiological and anatomical, by the local selective action of remedies is probably only a matter of time.—*Med. Press*.

LOCAL USE OF MENTHOL AND ENCATYPTOL IN AFFECTIONS OF THE MIDDLE EAR.

Dr. Adolph Bronner, gives some interesting facts concerning the use of these remedies in certain diseases of the ear. "The most favorable cases seem to be those of chronic swelling of the mucosa, whilst in the initial stages of some cases of sclerosis I was inclined to think that I had prevented the encroachments of the disease. When the mucosa is greatly swollen, I direct the use of a snuff of boric acid with two per cent. of menthol to be frequently used in small quantities, while at the same time I inflate the mid-

dle ear with the catheter and menthol vapor. A few drops of a twenty per cent. solution of menthol in olive oil is poured into an antiseptic capsule, and this is then firmly attached to the catheter." The capsule used is similar to the Hartman capsule, and the current is passed through by use of Luca's modification of the Politzer bag. The vapor is slowly inflated, and much stress is put on the *prolonged use* of this agent upon the diseased mucosa. "I do not remember having produced any pain or inflammation from this procedure, and on the contrary, I think, that by the use of the menthol I have been able to relieve the slight occasional pain."—*Archives of Otolaryngology*.

TREATMENT OF PHTHISIS.

In a clinical lecture Dr. William Pepper deals with certain points in the treatment of pulmonary phthisis. Inhalations are better than the use of drugs in paroxysms of cough. As an inhaler he prefers a simple jar with ample cork. Through the cork insert two tubes, have the material to be used placed in the jar, and allow the patient to draw air through the shorter tube. This apparatus can be made in a portable form by using short bent tubes, corked at each end, in which is placed sufficient of the preparation for one dose. A number of these tubes can be carried in the pocket; when the patient feels that a spell of coughing is coming on, he can open a tube and inhale its contents. A fair prescription for this purpose is the following:

R
 Creosoti.....3j.
 Tr. iodi.....3ij.
 Chloroformi.....3ij.
 Sp. vini rect.....q. s. ad. 3j. Misco
 Sig. Inhale ten drops.

Carbolic acid can be substituted for the creosote in somewhat smaller doses. Thymol, a highly volatile antiseptic, agreeable in odor, can be tried; tincture of conium may replace the chloroform. Occasionally, for a variety of reasons, a cough mixture may be necessary. Given in syrup form the expectorants are apt to be somewhat nauseating. Dr. Pepper prefers some such pill as the following, which relieves cardiac excitement in case of fever, is rather expectorant, and allays irritation:

R
 Ext. opii.....gr. lii-v.
 Pulv. digitalis.....gr. xv-xxx.
 Pulv. scillæ.....gr. xv-xxx.
 Quinina sulph.....gr. xxx.
 Div. in pil. xxx. Misco
 Sig. One, two to four times a day.

If the squill nauseate, it may be left out.

In place of the opium, if it be found to be too constipating, codeine may be given. Constitutional measures which will at the same time favor the appetite, be antiseptic, and help to render the lung a less favorable nidus for the bacillus, can all be added in one prescription, such as the following, which is not unpleasant to take:

R	Creasoti	gtt. xxxij.
	Tincture gentianæ co.	℥j.
	Tincture nucis vomicæ co.	℥j.
	Sp. vini gallici	℥j.
	Glycerin	℥j.
	Vini xerici	℥j. Misco
Sig. A dessert to two tablespoonfuls.		

—*St. Louis Med. and Surg. Jour.*

ACONITINE IN TRIGEMINAL NEURALGIA.

Dr. Seguin, in his lectures on the treatment of neuroses, strongly recommends the use of this alkaloid in cases of tic-douloureux. His opinion is that cases are either cured by this drug, or that, at least, it is possible to give long intervals of freedom from pain; but it must be pushed, and its administration is not without danger. The form which he recommends for its administration is in a pill containing $\frac{1}{10}$ of a grain of Dusquenal's crystallized aconitine. These pills are given to the patient in gradually increasing quantity until numbness is felt all through the body with chilliness, and, in some cases, even nausea and vomiting. At first he gives one pill twice a day to females, and three times a day to males, and it is not unfrequently necessary to give as many as twelve pills daily. After the dose is found which is both efficacious and tolerable the treatment is kept up for several weeks after the pain has ceased, and the patient is directed to take a large dose—two or three pills—on the least return of the characteristic sharp pain. Even if no syphilitic history is given, and although there should be no reason to suspect it, this treatment is continued with the administration of the red iodide of mercury in doses increased from one-twentieth to one-fifth or one-sixth of a grain, and iodide of potassium from twenty to forty-five grains, largely diluted with water, after each meal. This medication is continued for two or three months steadily, and a course of a month of it is subsequently given every few months. Along with those drugs the patient must have an abundance of nutritious food, and it is advisable to administer cod-liver oil as well.—*Lancet.*

THE ADVANTAGE OF COMBINING IODINE WITH GLUCOSE.

The remedial value of iodine is well known. But it is also a fact that full doses cannot be administered internally except in the form of iodine of potassium. As a rule, in the various forms of disease to which free iodine is applicable any combination having an alkaline base is not desirable. In order to secure the specific action of a remedy adapted to relieve chronic disorders, and it is to this class of diseases that iodine is chiefly applicable, it is important that it should be to a certain extent cumulative and retained in the circulating blood for a sufficient length of time to exert its specific action upon diseased tissues. In glucose we have an agent capable of absorbing, or rather of occluding, free iodine so that this metalloid cannot be detected by either odor or taste, and thus combined can be administered in much larger doses than formerly employed without producing unpleasant symptoms. Another advantage in giving iodine occluded by glucose is found in the fact that as this substance occurs normally in the contents of the small intestine, in the chyle after the use of amylaceous and saccharine food, in the blood of the hepatic veins, and in the tissue of the liver in the form of glycogen, it is probable that glucose in thus occluding free iodine is itself protected from chemical change during the process of digestion by the antifermentative quality of the latter, and hence may be readily absorbed into the circulation, carrying in its embrace the iodine to be liberated during the morphological changes that occur prior to the formation of new blood-corpuscles. In the formula, thirty grains of iodine are dissolved in four ounces of water by means of one hundred and fifty grains of potassium iodide; to this solution is added twelve ounces of syrup as prepared by the sugar-refineries and sold by grocers under the name of golden syrup, or sugar-house syrup, or molasses. This syrup contains glucose in combination with organic matter, and answers the purpose quite as well as glucose manufactured from starch by the action of sulphuric acid, or other glucosides furnishing this substance in the isomeric form. In the *Medical Record* for June 13, 1891, Dr. F. P. Mann gives the following formula as representing the best combination for iodine and glucose, with the caution that simple syrup must not be substituted, for this, containing entirely crystallizable sugar, will not take up the iodine, and the result will be

a strong solution of iodine, which cannot be taken without serious inconvenience. Dr. Mann writes that he has produced the most satisfactory, even remarkable, results, where potassium iodide or syrup of the iodide of iron had signally failed, with the following formula :

R Iodinii.....Ses.
Potass. iodidi.....Siss.
Aqum puræ.....Siv.
Syrup. fuscus.....Sxij.
Eas. gaultheriæ.....Sij. M. Fiat sol.
Sig Take a tablespoonful between each meal with a little water. (Syrupus simplex must not be used.)

He advises when using this formula to keep the preparation for about twenty-four hours before commencing its use, as from six to ten hours are required in which to completely occlude the free iodine. He adds that a larger proportion of the free iodine can be given than the above, and the preparation of the free iodine can still remain odorless and tasteless so far as free iodine is concerned; though where a stronger combination is employed it would be advisable to commence with a smaller dose and increase it gradually.—*Ther. Gaz.*

MEDICINE.

THE CARE OF THE THROAT AND EAR BEFORE AND DURING THE INFECTIOUS DISEASES.

In treating the throat lesions, Dr. E. E. Sattler writes, we must always take into consideration the age of the patient, the stage of the disease, the extent and thickness of the membrane formed. Antiseptic irrigations, sprays, or gargles, should be used every half hour or so in the manner and with the solution mentioned in the prophylactic treatment. This treatment must be kept up at night, as well as day, without fail. Whatever membrane comes off with gentle pressure can be removed, and the throat swabbed every few hours with a solution of bichloride of mercury in strengths from 1:500 to 1:1,000. I believe that this remedy will accomplish our aim best and has given the most uniformly good results. Strong caustics of all kinds must be handled with the greatest of care, and we must remember that by denuding or abrading healthy mucous membrane in proximity to the diphtheritic process, we run the risk of more extensive infection. In children, I think, strong caustic agents are absolutely contra-indicated. When the membrane is very thin we can rely on one or the other of the solvent remedies mentioned above, and

then use the bichloride swab. Forcible separation of the false membrane, I think, is always uncalled for, and frequently acts in a detrimental way. Continuous cleansing of the infected nose, naso-pharynx, and throat by antiseptic solutions, day and night, swabbing the throat with a solution of bichloride of mercury, eternal watchfulness, and constant vigilance constitute a rational treatment of the most common throat lesions. Of course, I do not mention the valuable assistance which we derive from internal medication in this disease, as it falls entirely outside the scope of these remarks. My purpose was simply to show what care should be taken of the throat, the *sons et origo* of these dreadful diseases.

When we come to consider the care of the ear before and during these affections, we come to a subject to which little attention has been paid, and which has been neglected by physicians generally. It has been estimated that 64 per cent. of middle-ear troubles are due directly to catarrhal troubles of the nose and naso-pharynx, and that 33 per cent. of the cases suffering from scarlatina develop an otitis media. By an early treatment of aural complications, no doubt this percentage could be materially reduced. But the methods of prophylaxis detailed above for the mucous membrane of the nose and throat, we are able indirectly to benefit the contiguous lining of the Eustachian tube and middle ear, and in this way prevent, or at least lessen, the extension of the inflammatory process inwards to the ear. In scarlet fever especially danger always threatens the ear, and it is the imperative duty of the physician to keep an eye on this delicate structure. A proper examination with good light at certain intervals is absolutely necessary. During the stage of desquamation especially, a sharp lookout must be kept, and sudden change for the worse, an elevation of temperature, increased fretfulness or severe pain, should call immediate attention to the ear. In older children the diagnosis of implication of the ear need not be so difficult; but in young children and infants it is often attended with uncertainty, and frequently the diagnosis is not made until the discharge of purulent matter is seen in the external meatus. It has become an old saying, and a good one too, that when you are called in to treat a crying child, and you do not know for what to treat it, treat it for the ear-ache. As a rule, however, before much treatment is instituted nature finds relief and an exit for the pent-up matter in the middle ear, by a perforation of the membrana tympani, and a more

or less profuse purulent discharge shows itself in the outer ear.

I cannot linger too long over details of treatment, as I know my time is almost up. It is my firm conviction, however, that a neglect to treat immediately the otitis media and the resulting otorrhoea constitutes an almost criminal action. To refuse to treat this discharge, to leave its arrest to nature, to belittle it by telling parents that their children will outgrow it, has been the means heretofore of more suffering and deafness in after years than all other troubles combined. In the dawn of the twentieth century such neglect, I hope, is a thing of the past. No other inflammation of the middle ear is followed by such quick destruction of the drum and contiguous parts of this sequela of scarlet fever. It requires immediate attention. When the drum has been perforated and this discharge is present in a greater or less quantity, gentle syringing with a lukewarm antiseptic solution, drying of the external meatus with the probe wrapped with cotton, the use of one or the other astringent remedies as the case may require, the gentle inflation of the middle ear by the Politzer method, is the treatment generally called for in ordinary cases. I, myself, am opposed to the careless and indiscriminate use of boracic acid or other powders, especially in the hands of general practitioners. This treatment must be continued as long as necessary, and of course in the hands of the specialists will be modified in a variety of ways for different cases.

In an early and rational treatment of this dreaded sequela of scarlet fever we must look for the benefit which will surely follow for the coming generation. May we hope that soon, with the intelligent and educated co-operation of the people and the physician, diphtheria and scarlet fever will be almost as radically stamped from the face of the globe as that one-time dreaded and frightful disease — small-pox. *Cincinnati Lancet Clinic.*

SOME RECENT CONTRIBUTIONS TO THE LITERATURE OF RAYNAUD'S DISEASE.

A most interesting and suggestive paper, entitled "A Contribution to the Diagnosis of Raynaud's Disease," was read before the New York Neurological Society, by Dr. Geo. W. Jacoby, on Jan. 6, 1891, and published in the *New York Medical Journal* of Feb. 7, 1891. He reviews the various

theories advanced in explanation of the disease: viz., Raynaud's, that it is due to spasm of the vessels caused by a functional spinal irritation; the possibility that abnormal blood mixture might be the cause; the cases in which a neurotic origin seemed indicated by lesions found in the peripheral nerves and those occurring in acute infectious diseases. The main part of his paper consists in deductions drawn from a case of his own, which showed primarily typical Raynaud's disease, and which subsequently developed and died of chronic interstitial nephritis. This case is contrasted with others reported in syphilitic subjects by Klotz and Hutchinson, and the great clinical similarity insisted upon. Raynaud excluded from among his cases all those due to syphilis, but Dr. Jacoby says with great point: "This demand in itself shows the weak foundation upon which this diagnosis rests, for if in two different individuals all the symptoms of Raynaud's disease are present, without any other symptoms which might indicate the existence of anatomical disease of the arteries, we are asked in the one case to exclude the diagnosis of 'Raynaud's disease,' because the patient acknowledges having had syphilis, while in the other we must accept the diagnosis, because a syphilitic history is not obtainable. The difficulty in understanding these cases lies in the fact that the frequent occurrence of syphilitic disease of the peripheral vessels, excepting those of the brain, is not yet appreciated as it should be." As hinted in this quotation, the Doctor insists upon the probability of symmetrical gangrene being due, as has been proven in some cases, to obstruction of the end arteries by inflammatory processes in syphilitic cases, even when no lesion is appreciable in the large trunks, and of the probability of the same process existing in cases which are really syphilitic though not suspected or proven to be such. In his own case of symmetrical gangrene followed by cirrhotic kidney he regards the disease as probably due to non-syphilitic endarteritis, the arterio-capillary fibrosis of Gull and Sutton. The necessity of making a microscopical examination of the small arteries of affected areas in these cases is rightly insisted upon before the vascular origin of such processes can be excluded. Disease of large vessels may effect such lesions, but the absence of disease in the large vessels does not exclude the possibility of grave lesions in the terminal arteries.

His general summing up is as follows:

"From a consideration of the various data here adduced, from the nephritic as well as from the syphilitic cases, we are unavoidably forced to the conclusion that those authors who admit that an affection of the small arteries, be this an arteritis obliterans, or other change, does produce a similar clinical picture to that formed in Raynaud's disease, therein are right, but that these same authors are wrong when they contend that a differential diagnosis between the two affections can always be made. The points which are advanced by the various writers for the purpose of making the differential diagnosis are the following: Gangrene occurs in some cases of Raynaud's disease in places where endarteritis obliterans has thus far never been described (face, vulva, auricle, ear, nates, loins); the lesion in many cases of Raynaud's disease is confined to the superficial layers of the cutis, and this never occurs in endarteritis obliterans; the absence of those aetiological moments which produce vascular disease; absence of all palpable anatomical changes in the vessels; and, finally, the occurrence of symmetrical gangrene in neuropathic individuals only.

That these points are invalid and some of them erroneous becomes clear when we consider: (1) That it is probable that arteritis obliterans does occur in the vessels of the skin, as shown in the very excellent article of Klotz, entitled, "The Occurrence of Ulcers Resulting from Spontaneous Gangrene of the Skin during the Later Stages of Syphilis, and their Relation to Syphilis"; therefore, superficiality as well as location would not serve to exclude arteritis; (2) as regards the absence or presence of an aetiological moment (history of syphilis), I have already expressed myself at length; (3) if an arteritis occurs in the peripheral ramifications and spreads upward, then no anatomical change can be clinically detected; (4) that symmetrical gangrene occurs only in neuropathic individuals is a statement not supported by facts. It is true that nervous symptoms are frequently present, but these are often simply results of widespread vascular disease. We are, therefore, justified in concluding that the different diagnosis between Raynaud's disease and anatomical disease of the arteries can in many cases not be made *intra vitam*—in other words, many cases of so-called Raynaud's disease are really cases of arteritis.

The author's further contention that Raynaud's disease should be regarded as a symp-

tom complex, and not as a distinct pathological entity, must commend itself to all who have investigated the subject.

In the *Sci.-J.-Kwai Medical Journal*, D. C. Haga announces that, as the result of the microscopical examination of thirteen cases of idiopathic gangrene, he had reached the result that it was due to arteritis obliterans of syphilitic origin. This article is unfortunately very brief, and would not on its face carry conviction to one who was not inclined to accept the results. As confirmatory of observations of other works in the same line, it is perhaps of value, but it seems a pity that such opportunities should have been apparently so inadequately utilized. The paper is of interest, especially in connection with Dr. Jacoby's.

In the *Lancet* of July 6, 1889, is recorded a case in which a transient attack of local asphyxia was determined by a dog-bite. The patient, a boy aged nine, was bitten on the left arm and hand. He was both anæmic and syphilitic. The coldness and lividity were most persistent in the left arm and hand, but the radial pulse being decidedly less full on that side than on the entirely unaffected right. The attack passed off in two hours entirely. Slight lividity of the ears was also noted. Slight attacks afterwards occurred, lasting on one occasion ten minutes, on another one hour. Once the left foot became cold and the toe blue after a warm bath. In spite of the co-existent syphilis, the shortness of the attacks, the final ultimate recovery after the wound was healed, and the existence of a well-marked peripheral irritation—all seem to indicate that this case was indeed due entirely to vascular spasm. It seems to the writer most plausible in the study of these cases to admit that the rapidly changing phenomena of typical cases of Raynaud's disease are due to vascular spasm. It is quite possible that the graver necrotic lesions are due to coincident vascular disease. It is quite possible that in infectious diseases, such as typhoid fever, symmetrical gangrene may be due to the inability of the feeble tissues to resist external irritants or infectious organisms by reason of general feebleness, interference with the trophic innervation or passing spasm of the vessels, independent of possible embolism. In the *Provincial Medical Journal*, Dr. W. Alexander cites a case as neurotic gangrene simulating Raynaud's disease in a boy of ten, who had an exanthem and fever prior to certain sloughs, which separated and healed when the boy got well.—*Epitome*.

THE ANAL REFLEX.

Rossolimo (*Neurologisches Centralblatt*, May 1st, 1891) says this reflex consists in a contraction of the anal sphincters in response to a stimulation of the skin and mucous membrane of the anus. It is invariably present in man in health. The branches of the inferior hæmorrhoidal, pudendal, and perineal nerves, on which this reflex depends, are connected with the third and fourth roots of the sacral plexus, which spring from nerve cells in the conus medullaris. This reflex can be obtained in the dog as well as in man, and Rossolimo cut the spinal cord across at different levels from above downwards; whenever the lumbar enlargement was cut across at the level of entry of the third sacral nerve, the anal reflex suddenly disappeared, from which it follows that the cells of the spinal cord which are connected with this reflex are situated in the third quarter of the lumbar enlargement, reckoning from above downwards. In another series of experiments the lumbar enlargement was exposed, and the sacral roots were cut one at a time. By this means it was proved that the anal reflex depended upon the integrity of the third and fourth sacral roots. This reflex therefore has its seat in the cord lower than any other reflexes. To obtain the anal reflex the patient may be either standing, the operator separating the glutei, or lying on his side with the legs drawn up. The skin and mucous membrane of the anus may be stimulated by stroking with a pin, a feather, a piece of paper, or some suitable object. The reflex is shown by a contraction of the sphincter ani externus, and if it is very strong there is a drawing in of the whole anus, and even sometimes a contraction of the glutei. In women the testing of this reflex may be conveniently combined with a gynecological examination. The author has examined this reflex in a great many conditions, and he comes to the following conclusions: It is increased in some cases of neurasthenia, in cases of myelitis high up in the cord, and in conditions in which there is a general exaltation of sensations. It is lost in multiple neuritis affecting the sacral plexus, in some cases of tabes, and in myelitis of the lower part of the cord, and in these cases there is generally also anæsthesia of the rectum, anus, and urethra. It remains normal in functional derangements of the bladder, the rectum, and the sexual apparatus.—*Brit. Med. Jour.*

NERVE STRETCHING.

M. Charcot related three successful cases of stretching of the sciatic nerve. A postman in going his rounds six years ago, fell on the right hip from a considerable height. Great pain along the sciatic nerve followed and lasted four months. Three years subsequently the suffering became again acute and resisted all medical treatment. M. Charcot tried what stretching would do, and a month after the operation all pain had disappeared, never to return. The second case was that of an artilleryman and the operation was equally successful, while the third was still more interesting. A young soldier suffered from sciatica of an absolutely rebellious nature. The operation produced immediate relief. In concluding, the speaker said he was surprised that elongation of the nerves was not more frequently resorted to. Out of 66 cases M. Lagrange reported 12 definite cures, 49 improvements, permanent or temporary, four totally unsuccessful cases and one death.—*Med. Press.*

THE HEALING OF TUBERCLES.

M. Virchow said: In order to be able to speak with precision of the healing of the tubercles and of the modifications consecutive to the injections of the liquid of Koch, it is necessary to distinguish the tissue which constitutes the tubercle itself (properly speaking, tuberculous tissue), on the one part, from the tissue which represents inflammatory exudate (catarrhal and caseous pneumonia), and which are not, strictly speaking, veritable tissues.

This admitted, there is reason to ask, on what does the remedy of Koch act? Does it act at once upon the three classes of pathological products? Without wishing to reply to this question by an absolute negative, I am able to say nevertheless that the visible effects of the injections, those that we are able to study directly, show that the action of Koch's remedy bears in an unequal manner upon the three pathological products already mentioned.

Let us first study the action of the remedy of Koch upon the tubercles properly speaking. If the remedy be really able to cause the resorption of the miliary and submiliary tubercles, this fact should have been proved in one way or another.

I have occupied myself much during my life in the research of cases where a resorption of the tubercles had been produced, but

I have never succeeded in getting together a number, though it be small, sufficient for observations of this species, and I ought to add that this number has by no means augmented since the use of the liquid of Koch.

With regard to the bacilli of tuberculosis, we know that Koch himself has declared that they are not attacked by his fluid.

For that which now concerns the neighboring tissues which are not tuberculous in the strict sense of that word, I am convinced by observations upon the living as upon the dead that it is upon these tissues, modified by irritation and inflammation, that the action of the remedy of Koch especially acts. In a certain sense this is a fact favorable for the patient; let it be understood that it implies the possibility of the elimination of the tubercles with the product of destruction of the neighboring tissues. But on the other hand it implies also the danger of an excessive irritation of these same tissues—danger of which we have several times seen examples.

I may not omit to remark that I have never spoken of the therapeutic value of the injections of the liquid of Koch. I do not say that it is dangerous. I have simply indicated the possibility of the danger without entering into any considerations upon the different cases and the circumstances in which this danger appears.

I desire to say to-day that in my opinion it is the tissue irritated or inflamed in the vicinity of the new formation which is the most influenced by the remedy of Koch. If we apply to the lungs and to the brain the action so well studied upon the skin in lupus and upon the laryngeal mucous membrane, there can be no doubt that the tissues bordering on the tubercles would become therefrom, after the injections, the seat of tumefaction, intense congestion, acute œdema, hæmorrhagic infiltration, immigration of leucocytes, nay, even of proliferation with formation of new tissue or of its elements.

With the exception of the cases of phlegmonous inflammation of an excessive intensity, of which I have presented to you the anatomical specimens, one can say that all the modifications produced by the remedy of Koch enter into the group of lesions already known, and are only some varied forms of the process of inflammation and of necrosis.

It has been observed, after some injections, that there is a diminution of the zone of thoracic hollow sounds, and this fact has been attributed to the action of the remedy of Koch on the tuberculous tissues. But it

is evident that this phenomenon can only depend on a diminution of the catarrhal hepatization accompanying the tubercles, and ought not in any fashion to be placed to the account of the tuberculous tissues, properly speaking.

To sum up that which concerns the anatomical modification produced by the lymph of Koch, I will say that (1) we do not possess any evidence of destruction of the bacilli; (2) there does not exist any fact directly demonstrating the resolution of the tuberculous virus and the resorption of the tubercles; (3) we have already a whole series of observations to support the fact that the destruction of the tubercles and of the neighboring inflammatory tissues is accelerated by the method of Koch. Otherwise we know nothing still which is of a nature to demonstrate that the injections favor the process of induration and the encapsulation of the caseous masses. Quite to the contrary, there is reason to believe that the liquid of Koch is capable of mobilizing afresh some caseous masses already encapsulated, and of establishing in this manner some fresh centers of infection.

I will say in conclusion that I am far from considering my researches at an end. I acknowledge with pleasure that it will be very important to control the observations of M. M. Grabower and Flatau, in which some submiliary tubercles, appearing during the treatment by the method of Koch, have disappeared in the course of further injections. I do not consider this assertion as impossible, but M. Flatau will pardon me if I deem a little strange the disappearance of tubercles under the influence of a remedy that had provoked the eruption.—A. M. Gillett, in the *Amer. Pract.*

ACUTE PULMONARY CONGESTION OF A PSEUDOPLEURITIC TYPE.

M. Berthier (*Revue de Medecine*, April, 1891) says there is a form of pneumonia which gives the signs of pleural effusion, namely, complete dullness on percussion and absence of vocal vibrations and breath sounds. It has been termed by Professor Grancher "*pneumonie massive*." The ramifications of the bronchial tubes up to the larger divisions are filled with exudation. M. Grancher has also described another form which yields similar physical signs, and which he has named "*spléno-pneumonie*." He supposes it to be due to a sero-albuminous and epithelial inflammation. M. Berthier then reports a case occurring in a young man after influ-

enza. There were signs of fluid at the left base, but exploration with the needle was negative. The expectoration consisted at first of pure blood. On the fourth day the patient became much worse; he was cyanosed. Similar signs were found at the right base, with bronchial breathing and bronchophony at the angle of the scapula. Later, friction sounds were heard over the subspinal fossa, first on the right and later on the left side. The patient was discharged well in six weeks' time. M. Berthier remarks that the "congestion" was very intense in this patient; the parenchyma of the lung was infiltrated with blood, as also the smaller tubes. During the last epidemic of influenza, cases of pulmonary congestion—and that, too, of a peculiar kind—were frequent. Dry pleurisy was also a common complication.—*Brit. Med. Jour.*

CHLORIDE OF GOLD IN LUPUS.

Dr. J. Rüsin (*Meditzinskoie Obozrenie*, No. 5, 1891, p. 509) reports the case of a peasant woman, aged 40, with extensive lupus of thirteen years' standing, successfully treated by the subcutaneous injection of a 1 per cent. solution of chloride of gold in combination with a 1 per cent. solution of cyanide of potassium. Nearly the whole face, nose, and forehead were involved, the cheeks, forehead, chin, and hard palate being studded with ulcers, the discharge from which contained tubercle bacilli. In all, six injections were given in the course of eleven days, the total quantity of either of the salts amounting to $\frac{1}{10}$ grain, the individual doses of the chloride varying from $\frac{1}{1000}$ to $\frac{1}{10}$ grain, and those of the cyanide from $\frac{1}{1000}$ to $\frac{1}{10}$. On the second day of the treatment, the subjective state markedly improved; on the third, the swelling of the face subsided, some old scars began to shed cuticle, and a labial ulcer distinctly decreased; on the 6th, some ulcers on the cheeks and hard palate commenced to heal, while the facial tumefaction and pain disappeared altogether; on the twelfth, several ulcers soundly healed, and the remaining ones became clear and covered with healthy granulations. Of accessory phenomena, there were observed a kind of intoxication, drowsiness, rigor, and slight elevation of temperature. These symptoms made their appearance on the fourth day of the treatment, shortly after the injection of $\frac{1}{10}$ grain. They disappeared spontaneously the next day.—*Brit. Med. Jour.*

SURGERY.

HARDENING PLASTER.

M. Julte has recently communicated to the French Academy of Sciences a process of hardening plaster so as to adapt it to the construction of flooring in place of wood, and to other purposes for which it cannot be used in its ordinary state, on account of its want of hardness and resistance to crushing. It is effected by intimately mixing six parts of plaster of good quality with one part of finely sifted, recently slaked white lime. This mixture is employed like ordinary plaster. After it has become thoroughly dry, the object manufactured from it is saturated with a solution of any sulphate whatever whose base is precipitated in an insoluble form by lime. The sulphates best adapted for the purpose, from every point of view, are those of iron and zinc.

With sulphate of zinc, the object at first greenish, finally assumes through desiccation the characteristic tint of the sesquioxide of iron. The hardest surfaces are obtained with iron, and the resistance to breakage is twenty times greater than that of ordinary plaster. In order to obtain a maximum of hardness and tenacity, it is necessary to temper the limed plaster well in as brief a space of time as possible, and with no more water than is strictly necessary.

The plaster cast, or other object to be hardened, should be very dry, so that the solution employed may penetrate it readily. The solution should be near the point of saturation, and the first immersion should not exceed two hours. If immersed too long, the plaster would become friable.

The proportions of the lime and plaster are arbitrary, and may be varied according to the results to be obtained; nevertheless the proportions of one to six have given the best results.—*Sanitarian.*

TREATMENT OF ENURESIS.

Dr. Säger, of Leipsic, recommends a course of systematic dilatation of the urethra in cases of enuresis both in women and female children. His plan is to introduce a metal catheter well into the bladder, keeping the thumb over the aperture. The instrument is then firmly pressed backwards and to each side from eight to a dozen times. It is, of course, useless to make any pressure anteriorly, as the pubes lie immediately in front. Ten or twelve sittings are usually sufficient. During the treatment the patient is desired

to control the sphincter as much as possible by means of the will, to take but little to drink and to keep the abdomen warm. The good effects of this mechanical system of treatment are to be ascribed to increased power gained by the sphincter in consequence of its contractions after dilatation and stimulation. This method is useful where the paralysis is of central as well as where it is of peripheral origin. Where, however, the neck of the bladder and the whole urethra are of very large calibre, it is useless, and in such cases a plastic operation is required.—*Lancet*.

THE ETIOLOGY, PROPHYLAXIS AND THE- RAPEUTICS OF HÆMORRHAGES AFTER TONSILLOTOMY.

Although hæmorrhages following excision of the tonsils are of rare occurrence, they are of great interest to surgeons. The majority of patients are adults, in whom the hæmorrhage is due to the fact that the incised blood-vessels fail to retract and contract properly in the indurated tonsillar tissues. The bleeding never results from injury of the carotid artery, as was formerly believed, but comes from the enlarged tonsillar branch of the carotid or the ascending pharyngeal, from the pterygo-palatine artery, or from the ascending palatine in cases where the latter vessel is abnormally situated. Usually, however, the hæmorrhage is not arterial, but of parenchymatous character. It can be easily understood that in persons suffering from hæmophilia, tonsillotomy may give rise to an uncontrollable hæmorrhage.

As regards the prophylaxis, care should be taken in the performance of tonsillotomy not to draw the tonsils too far forward between the faucial pillars, because the surrounding folds of mucous membrane, and the vessels at their point of entrance in the tonsils, are exposed to injury. These accidents are most likely to happen if guillotine-shaped tonsillotomes or scissor-formed instruments are used. Especial care should be taken not to operate in the acute stage of inflammation, or in marked tonsillar hypertrophy, because these conditions favor the occurrence of secondary hæmorrhage. For the same reason the surgeon should content himself with excising only that portion of the tonsil which projects beyond the faucial pillars, the more so since the remaining part usually undergoes spontaneous shrinkage.

If a severe hæmorrhage occurs we should make use at first of styptics, which, in conjunction with compression, are usually suffi-

cient to arrest the bleeding. The application of ice is an excellent hæmostatic. If these means fail, we resort to cauterization with nitrate of silver, or better still the Paquelin cautery. In the severe cases ligation of the common carotid artery has been successfully performed. As a final resort, tracheotomy with tamponing of the pharynx may be entertained. Experience has shown that severe hæmorrhages are frequently arrested by the occurrence of vomiting or syncope, and these conditions may be artificially produced for the same purpose.—Dr. O. Von Holst in *Oest.-ungar. Centralbl. f. d. Medicin. Wissenschaften*, No. 11, 1891.

COCAINE IN URETHRAL SURGERY.

In December, 1886, Dr. W. Frank Glenn, of Nashville, Tenn., introduced a bulbous bougie in a patient on whom he had cut a stricture three inches from the meatus; also enlarged the meatus. He prepared a fresh 8 per cent. solution of muriate of cocaine, and injected a small quantity (without measuring,) into the urethra. Ten seconds had nearly passed when patient excitedly asked, "Will that put a man asleep?" Dr. Glenn answered, No; that its effect was only local. By this time the patient was unconscious, muscles jerking, eyes rolling upward, mouth frothing, and every few seconds entirely ceasing to breathe. He was thoroughly and completely poisoned by the cocaine. It required the active work of three other physicians and himself one hour and fifteen minutes to prevent death. At last, however, he began to breathe naturally, and soon returned to consciousness without any ill effects whatever resulting therefrom. He then resolved to use cocaine (of any strength) no more on a recently cut or denuded urethra. He has since had no unpleasant results until September 24th, 1890. Seeing that Glück regarded a mixture of cocaine in a weak phenol solution as entirely void of any danger, he again tried it in a urethra which had been incised at the meatus just forty-eight hours previous.

The solution was prepared after Glück's formula with the exception that instead of adding ten grains of cocaine to the drachm, he only put two and one-half grains. He took a small quantity in a syringe and injected into the urethra, not holding it in, but allowing it to escape immediately. He turned to his instrument case, and immediately the patient raised up and asked, "What is this?" and fell back, going at once into the regular cocaine spasms, from

which in twenty or thirty minutes, Dr. Glenn feared he would lose his life. The symptoms were exactly those of his former patient, though not lasting so long.

These two experiences, with one other, in which the effects were well marked, but not alarming, will cause him to be very careful in the use of cocaine on absorptive surfaces. In the mildest case of the three, the urethra had not been incised at any point, but was ulcerated, and bled upon the slightest touch with an instrument.

From these cases, he draws the following conclusions:

1. Cocaine is a most potent and wonderful local anodyne, but not void of danger.
2. Its use should be positively forbidden in the recently cut or denuded urethra.
3. Prepared after the manner of Glück (with phenol), it is equally unsafe to apply to the abraded urethra.
4. The use of cocaine in the urethra is attended with more risk than when applied to any other part of the body.—*South. Pract.*, April, 1891.

TREATMENT OF SUPPURATIVE PANOPHTHALMITIS.

Boé (*Annales d'Oculistique*, January and February, 1891) gives the results of some further investigations which he made in order to ascertain the advisability of enucleating a suppurating eyeball. At the International Medical Congress last year, he read a paper in which he came to the conclusion that it was not expedient to enucleate or eviscerate a suppurating eyeball. He considers that the further investigations which he has made strengthen the opinions which he expressed at Berlin. In his earlier experiments he injected blood taken from a body several days after death into the vitreous of rabbits. This was followed by suppurative panophthalmitis and death. The *post-mortem* appearances were not very marked. White lines bordered by a reddish zone were observed on the surface of the liver. Microscopic examination revealed dilated capillaries plugged with streptococci. There was no appreciable meningitis, and no metastatic abscesses were discovered. It has not yet been shown that the streptococcus is the only or chief agent in all intraocular suppurations, and it is impossible to diagnose whether the inflammation in any given case is due to a microbe or not. The author is of opinion that all cases should be treated as if they were microbic in origin. He is

strongly opposed to enucleation or evisceration in suppurating panophthalmitis. He recommends that when the pain becomes intolerable a free incision should be made into the eyeball, and the purulent contents evacuated. He objects to enucleation or evisceration on the grounds that either of these operations opens up numerous paths along which microbes might enter the system. He found in his experiments upon rabbits that general infection was more likely to occur if excision were performed soon after suppuration was established. Delay in operating lessened this danger, and for this there might be two explanations: either that the activity of the microbes had diminished, or that the veins and lymph channels had become plugged, and the entrance of the microbes into the general circulation was impeded.—*Brit. Med. Jour.*

"GUTTA-PERCHA PAPER" IN ULCERS OF THE LEGS.

Dr. Vasily P. Kûrtchinsky, of Nejin (*Vratch*, No. 35, 1890), speaks highly of the so-called "gutta-percha paper" as the best means of rapidly curing even the most intractable ulcers of the leg. The diseased surface should be first carefully washed with a 4 per cent. boracic acid solution, and then gently dried with a piece of absorbent cotton-wool, after which a sufficiently large sheet of the "gutta-percha paper" (previously washed in the solution and dried between towels) should be applied, covered with a thin layer of cotton-wool, and lightly fixed by means of a muslin roller. The dressing should be changed every day. Under such simple treatment the ulcers are said to heal soundly in about five days in more or less recent cases, while those of older standing and greater severity are cured in two or three weeks. Pain, heat, tension, and disagreeable subjective sensations subside almost immediately after the first application. Similar excellent results are also obtained in all cutaneous affections which are characterized by an intense local irritation, such as dermatitis of various kinds, acute or chronic eczema, erythema, erosions or fissures, etc. The author adds that the application of Martin's india-rubber adhesive plaster is followed by identical beneficial effects. This material, however, is a good deal more expensive than gutta-percha paper. In either case the curative action must be attributed mainly to the powerful sedative and protective properties of the dressing material.—*Brit. Med. Jour.*

A HAIR-PIN IN THE NOSE.

Dr. Joseph C. Roth, writes in the *Medical Record* that on January 28, 1886, while he was doing night duty at the Out-Patient Department of Chambers Street Hospital, New York City, a policeman brought in his daughter, stating that she had a hair-pin up her nose, and that a physician had tried for an hour to remove it. Upon questioning how the accident happened, she said she had dry nasal catarrh, and frequently used the curved end of a hair-pin to loosen the crusts. On the evening of January 27th she attempted to cleanse her nose as usual, and introducing the pin too far, it eluded her grasp; all attempts at its removal merely seemed to push it still farther into the nose. On examination he found a hair-pin in the right nostril, the two points embedded in the mucous membrane of the bony septum and turbinated bone. He attempted extraction with forceps for some time, but being unsuccessful, and producing quite a free hæmorrhage, he wrapped cotton about a nasal probe, and pressing it against the inner side of the distal or curved end of the hair-pin, pushed it as far into the nasopharynx as possible. He then, with his index and second fingers passed through her mouth and upward, back of palate, grasped the curved end of the hair-pin, and extracted the same through the mouth.

By removing the pin in this manner he was able to avoid all injury to the nose and throat, save what he had done while attempting its extraction through the anterior nares. The hair-pin was of the ordinary shape and size, measuring two and a half inches doubled, or about five inches from end to end.

GYNÆCOLOGY.

ENDO-UTERINE THERAPEUTICS.

Dr. More Madden in a paper on the above subject said, with regard to the methods of modern intra-uterine treatment and the conditions by which this is called for, his observations are founded on a clinical experience extending over many years, and embracing upwards of ten thousand gynecological cases treated in his wards or in the external department of the Mater Misericordie Hospital, Dublin. Of the cases admitted into those wards during the last fifteen years, endo-uterine treatment was found necessary in 35 per cent. The two essential points in all such treatment, are—first, that the orifice and cavity of the uterus, if not already

sufficiently dilated, should be mechanically expanded; and secondly, that whatever application is resorted to should be brought into direct contact with the diseased endometrium. For the first purpose the slow, painful, and hazardous methods of dilatation by sponge or laminaria tents have been long abandoned by Dr. More Madden, who employs in their stead the rapid cervical dilator which Messrs. Arnold have brought out in accordance with his suggestion, and which he finds more effective and quicker in its action than Hegar's or other similar dilators. The second object is especially necessary as a preliminary to endo-uterine treatment in cases of congestive hypertrophy and chronic subinvolution, in which the lining membrane of the uterus is commonly overlaid by an impervious pseudo-membranous albuminoid neoplasm envolved from the proliferating cilia of the diseased surface. Or else the endometrium, in many cases, is so thickly bathed in the tenacious morbid secretion therefrom, as effectually to protect the underlining tissues from the action of any remedial agent introduced into the uterine cavity until that pseudo-membrane and secretion are removed by the curette. For these objects Dr. More Madden recommends, firstly, the use of Duke's cervical curette to cleanse out the entrance to the womb; and secondly, the employment of his own Adjustable Uterine Curette, by which the endometrium may be thoroughly denuded, and at the same time by the hæmorrhagic discharge thus occasioned the congestion of the hyperæmic and hypertrophied organ may be most effectually relieved.

In the treatment of subinvolution the author advocates the introduction, in some instances, of a small tampon saturated in a combination of tannic acid and turpentine, which he termed "Tanno-terebinth." This acts as an immediate stimulant and astringent on the uterine structures, and in suitable cases is allowed to remain in the cavity from 12 to 24 hours, unless sooner expelled from the then generally much contracted uterus. The vaginal glycerine saturated tampon commonly employed in cases of this kind, although unquestionably serviceable in many instances, is messy and troublesome in its use both to patient and practitioner, and hence for some time past the writer has generally adopted the boric acid, or "dry treatment," recommended recently by Dr. Duke, and which he has found generally very satisfactory as a substitute for the older method of treatment. He also strongly

deprecates the employment of the ordinary syphon syringe for any endo-uterine purpose, and believes that this should be replaced by an irrigator such as the one he suggested many years ago, and which, having been since appropriated by others, without any acknowledgment is depicted in the paper of which this is an abstract. The foregoing measures must, however, be supplemented by more active agents in those more serious cases of long standing, fundal or corporeal endometritis and subinvolution, in which the disintegrated and eroded endo-uterine mucous membrane becomes the seat of various pathological changes, extending to the submucous structures and utricular glands, and often associated with those so-called fungosities resembling papillary epithelioma, which, if checked, may ultimately degenerate into that condition. In such cases it is that the cautery, actual or potential—the first in the form of igni-puncture, and the latter in the shape of stronger caustics, acid, nitrate of mercury, fuming nitric acid, or chromic acid, &c.—may be justifiably resorted to in endo-uterine treatment. In conclusion, Dr. More Madden briefly detailed the result of his clinical experience of these various applications, the circumstances that indicate their use, the dangers that may attend their abuse, and the methods of their employment.

It was also thought, in selecting dilators for use, the amount of dilatation required should be considered. In some cases it is only necessary to dilate to a small amount to admit a curette; in other cases a large amount of dilatation is required to admit the finger to explore the uterus. He wished to know in what case of chronic intra-uterine disease Dr. Madden recommended intra-uterine douching with hot water. After labor or abortion, or operations on the interior of the uterus, it is frequently done, but in these cases the cervical canal is patulous. In chronic cases the cervix should be kept in a state of sufficient dilatation to admit a Boazman's catheter, if uterine douching were carried out daily, as recommended by Dr. More Madden. As to the use of caustic, the most important point was to apply the caustic directly to the mucous membrane, which is frequently very difficult on account of the mucous secretion filling the uterus and cervical canal.—*Med. Press.*

PRURITUS ANI AND VULVÆ.

Dr. Augustin Gœlet (*Archives of Gynecology, Obstet., and Pædiat.*, March, 1891)

disparages the treatment of pruritus by simple application of any lotion. The vagina, he insists, should be daily cleansed with a solution of peroxide of hydrogen (1 part to 3 of water), best administered as a spray. The parts being dried with absorbent cotton, the whole vagina and vulva should be dusted with Squibb's pure boracic acid in fine powder. The neighborhood of the anus is, in cases of pruritus ani, to be cleansed with spray, dried and powdered in the same manner. The parts must not be washed with soap. After dusting the vulva and vagina, the medical attendant must place a thin layer of absorbent wool, which has been dusted with the same powder, between the folds of the labia and majora and between the nates, close to the anus and perineum so as to prevent the contact of two irritating surfaces. The wool must be changed directly it becomes moist. Dr. Gœlet says that the above treatment will effectually relieve the pruritus, but cannot prevent its return, as it does not cure the cause. Discharge from the vagina frequently causes pruritus ani in women, though the possibility of discharge from a fistula or some other rectal disease must not be overlooked. Pruritus vulvæ is most frequent in pregnant women with chronic endometritis and extensive erosion of the cervix. A few applications to the cervix of Churchill's tincture of iodine (which should be five times the strength of the ordinary tincture) every third day, and a douche twice a day of a solution of creolin, will frequently effect a speedy cure. The most prompt and effective method of treating endometritis, as well as erosion of the cervix, is by galvanic applications to the uterine canal, or to the cervix alone when the disease is confined to that part. Dr. Gœlet makes the above observations in a notice on a lotion recommended as a remedy for pruritus in the *Canada Medical Record*. The lotion consists of hypophosphite of sodium 1 drachm, carbolic acid half a drachm, glycerine 1 ounce, and Listerine 3 ounces.—*Brit. Med. Jour.*

OBSTETRICS.

RETENTION OF AN ALMOST FULL-TERM PLACENTA FOR TWO MONTHS.

In the *Indian Medical Record* of last month the editor, Dr. James R. Wallace, relates a very interesting case of retention of a placenta for nearly two months without any unfavorable symptoms supervening. The

facts are peculiar. He was called to attend a woman during her second delivery, which had come on at the eighth month. He found the head low down in the pelvis, and the expulsion of the child terminated naturally. While waiting for the uterine contractions to expel the placenta he received an urgent message, and left the midwife to see to the after-birth. He did not visit the patient again, but about two months afterwards he was called, to find her in great pain. There was some hæmorrhage, and on examination the uterus was as large as a child's head. The os was somewhat dilated, allowing two fingers to pass which touched a fibrous mass, found to be the placenta. On inquiry he ascertained that the midwife, finding that the after-birth did not come away within an hour, concluded that probably "everything had come away," and forthwith applied a bandage. The discharge ceased in about ten or twelve days, and the woman got up, going about her work without any discomfort, pain, or sense of weight. On applying compression over the fundus uteri, the placenta, quite fresh in appearance and without fœtus, was expelled.—*Lancet*.

DOES ONE ATTACK OF PUERPERAL FEVER PREDISPOSE TO SUBSEQUENT ATTACKS?

Dr. B. E. Kings, (*Mass. Med. Jour.*) after a somewhat exhaustive and painstaking search in connection with this subject, is forced to say that in no work has he found a single reference made to the liability of puerperal fever to recur. His experience leads him to conclude that an attack of puerperal fever predisposes to subsequent attacks, and he attempts to substantiate this statement by the report of several cases gleaned, not only from his own practice, but also from the practice of others who were competent to diagnose puerperal fever.

He reports the cases of six women who between them have had fifteen attacks of puerperal fever. He asks: What is the cause of the recurrence of the fever? Does the poison remain latent in the system, ready to break out at any favorable moment? To this he cannot concur, knowing the rapidity of the action of septic poison, knowing that it will not remain dormant, and that it is not recognized as a chronic disease.

He also asks: Can there remain a low form of inflammation of the peritoneum that at the slightest provocation the inflammation is rekindled or are adhesions disturbed by

changes that take place during pregnancy and confinement? In regard to old peritoneal trouble breaking out afresh, we all know how careful we have to be in operating in cases of old pelvic cellulitis, but still we must look further, for, in the only case in which he had a chance to observe the condition after death, no such adhesions were found.

Can the nervous system have a hand in the renewal of the fever? He says he can readily believe that a woman with a delicate nervous organization, under adverse circumstances, might be thrown into a condition favorable for the lighting up of a fever, as seen in one of his cases.

TUMORS OF THE DECIDUA.

Professor Sänger (*Centralb. f. Gynak.*, June 13, 1891) has collected a considerable number of cases of "deciduoma." A perfectly innocent form exists, which must not be mistaken for inflamed and degenerate relics of decidua left adherent to the uterine walls. Sänger and Chiari have observed a malignant deciduoma which gives rise to metastases—a true sarcoma of the decidua, in fact. Foul discharge and hæmorrhage follow delivery, and death occurs within six or seven months, after symptoms of disease in the bones, lungs, and other organs. The metastatic deposits in the lungs resemble decidua, bearing the characteristic cells. In the discussion on Professor Sänger's paper (reported in the *Union Medicale*, June 2), Dr. Müller stated that he had seen a case where masses of decidua-like tissue were found in the uterus and metastatic deposits developed in the vagina, abdomen, and nates. Dr. Veit believed that these cases were simply instances of pregnancy during cancer of the uterus.—*Brit. Med. Jour.*

PATHOLOGICAL ANATOMY OF ECLAMPSIA.

In fifteen cases of eclampsia, Schmori (*Centralblatt für Gynakologie*, No. 29, 1891) found necroses in the liver in almost every case. He divides them by their microscopic and macroscopic characteristics into hemorrhagic and anæmic, the first being much the more frequent. In five cases in which the heart and pancreas were also examined, necrotic patches were found mostly anæmic in the pancreas, mostly hemorrhagic in the heart. In the kidneys there was invariably more or less of a degenerative process to be seen in the epithelium, and frequently hæ-

orrhages along the boundary line of the cortex. In almost all the cases hemorrhages could be discovered in the brain, some macroscopic, but most microscopic. Pathological conditions were also found in the blood-vessels. There were numerous ruptures of smaller vessels which the writer ascribed partly to the compression of internal organs by the muscular spasms, partly by the contraction of the vessels themselves which accompanied the convulsions. There was noted, moreover, a separation of the endothelium in good-sized shreds, which led to embolic obstruction of the vessels. This was also favored by the rupture of small vessels and the entrance into the circulation of parenchymatous cells. There were found not only emboli of liver-cells, as observed previously by Jürgens and Klebs, but also indubitable renal cells, and cells of placental origin in the circulatory system. The presence of these cells not only stopped up small vessels, but also gave rise to thrombus formations and consequently to grave disturbance of the circulation. The whole pathological picture, says the writer, points to some poison in the maternal blood. Curiously enough, he would ascribe this poison to the decomposition of the parenchymatous cells within the blood; instead of giving the obviously correct view, that the poison emanates from the fetal body and is not excreted because the maternal kidneys have become, from some cause, insufficient to do their work of excretion.—*Univ. Med. Mag.*

PÆDIATRICS.

TREATMENT OF HYDROCEPHALUS.

Broca says (*Rev. Mens. des Mal. de l'Enf.*, March, 1891,) there are some cases of this disease in which surgery is powerless. Thus, when one finds post mortem that a subject had tubercle or a neoplasm of any kind in the cerebellum, or the cerebrum, which, by compression, had caused an effusion of fluid, it is certain that no surgical procedure would have been of any benefit whatsoever. The external cause of pressure might be removed and the symptoms be relieved for a time, but the initial cause would remain. There are cases, however, in which so serious a cause is not present, and which under previous conditions of surgery have been looked upon as hopeless. At the present time it is believed that for some of these cases relief can be obtained by the evacuation of the intracranial fluid. A cure may not result, but improve-

ment may occur. Such a result might be hoped for in cases in which the condition was of syphilitic origin. Before the antiseptic era, the results of puncture in these cases were bad. One was afraid to trephine, and if a trocar were used it was more than likely to be septic, and in a few days the result would be death from suppurative meningitis.

At the present time the cranium, the meninges, and the brain itself all show extreme tolerance to aseptic instruments, and Keen has proposed measures for the drainage of the cerebral ventricles. Clinical and anatomical investigations have led Keen to the conclusion that the surest way of entrance to the distended lateral ventricle and the best track for drainage was by a lateral opening, the crown of the trephine being applied three centimetres behind and three centimetres above the external auditory meatus. The brain should then be perforated by the trocar, the latter entering from three to six centimetres above the external auditory meatus and penetrating directly to the ventricle. No injury could be done by such wound to any vital portion of the brain. Keen has thus operated in three cases, Mayo Robson in two, and Thiriar in one. The author has also found the method one of extreme ease and rapidity. The ventricle should not be at once emptied, but progressively, and Keen recommends the use of a horse-hair drain. The brain will bear such an injury, and the drain may be left in position several days. Keen even advises irrigation of the track and the ventricles with boiled water, and in one case after an interval of several days trephined on the opposite side of the skull, put in a drain, and established thorough drainage. The patient died, but there was no evidence of inflammatory reaction about the wounds.

The principal danger in all the recorded cases seems to have been from the too rapid evacuation of the cephalo-rachidian fluid; in the first of Keen's cases death did not occur until the forty-fifth day, and then was attributable to a tumor of the cerebellum. In another case death followed within a few hours of the operation as the result of a unilateral tubercular meningitis. In order to produce a cure in certain cases of congenital hydrocephalus it will be necessary to operate early, before the fontanelles have closed. The author has operated, however, in one case in which the child was three and one-half years old. The five months which have elapsed since the operation have shown marked improvement in the child's physical condition, but the author does not speak

hopefully concerning his intellectual future. Mayo Robson also punctured an acquired hydrocephalus in a child ten years old, the wound being closed without drainage. All the bad symptoms disappeared, and the child to all appearances made a complete recovery.—*Archives Pædiatrics*.

TETANOID CONVULSIONS IN AN INFANT; OPERATION; RECOVERY.

Ronaldson (*Canadian Practitioner*) recently reported a case that arose when the child was nine days old. It was considered to be one of tetanus, whose starting-point seemed to be the neglected or badly-taken-care-of umbilicus. At first the convulsions were confined to the left side of the body; restlessness led on to tonic muscular contraction, and that was succeeded by well-marked clonic convulsions. Between the attacks the child was apparently well. The convulsions increased to the number of 204 in the twenty-four hours, while during their occurrence the tongue became blue-black, and at times well-marked opisthotones supervened. On one occasion they were never absent for one whole hour, and for a period of nine hours the child was unable to suck, in consequence of the frequency of the fits. When they did not come too rapidly, it took its nourishment greedily. They varied in frequency from about 100 to 204 in the twenty-four hours, but not in such a way as to warrant us in believing that treatment, local or general, had any beneficial effect.

Dr. Brakenridge, who saw the child, and subsequently confirmed the diagnosis, gave it as his opinion that the convulsions were not due to any disease originating in the brain, but that they were peripheral in their origin, and probably had the umbilicus as their starting-point.

Excision of the umbilicus was performed, and at once there was improvement, and the fits gradually decreased.

They returned later in a lesser degree, but were controlled by sulpho-carbolate of soda, and the child perfectly recovered. Microscopic examination of the excised umbilicus did not detect any special organism in it.

NOCTURNAL ENURESIS.

A correspondent of the *Lancet* advises for this trouble that the old-fashioned remedy of a birch-rod be employed shortly before the boy is put to bed, six not severe strokes repeated for two or three nights at the outside will effect a cure. The birching should be

regarded by all parties not as punishment for the past, but as treatment for the future—a very different thing. The rationale, he thinks, is (1) that it wakes up a desire to avoid wetting the bed; (2) that it draws the blood to the surface for a few hours, and thus relieves the pelvic organs; (3) that it stimulates the lumbar centre, controlling micturition through the nerves distributed to the upper gluteal region; and (4) that it prevents the patient lying on his back.

HYGIENE.

THE PREVENTION OF THE SPREAD OF CONSUMPTION.

Dr. Samuel G. Dixon, in his address before the State Board of Health of Pennsylvania said: As there is nothing that affects the wealth and happiness of the people of this great State more than ill-health, and as there is no one poison that interferes more with health than tuberculosis, which not only too often robs us of those in the prime of manhood and womanhood, but renders thousands upon thousands a burden to themselves and their families for years, yet it is happily a preventable disease, and this Board should be armed with authority and means to enforce and carry out sanitary laws essential to that end.

To accomplish this most important work it must be evident, after what we have reviewed this evening, that you should have legislation regarding the disinfection and destruction of tuberculous material, especially human tuberculous sputum.

There should be a law compelling passenger transportation companies to furnish receptacles containing either water or a germicide for sputum, both in their cars and stations. The same law should apply to all places where large numbers of persons gather together either for the purpose of work or amusement.

To enforce the expulsion of dust in our factories and workshops.

To compel the thorough sprinkling of the public highways immediately before cleaning.

To forbid spitting on the sidewalks.

To compel the drainage of damp soils before permits for building dwellings are granted.

Rules should be formulated for air space and ventilation of all buildings, and the builders and architects required to submit their plans and specifications before the

work of building can be commenced. This certainly is quite as necessary and practicable as the present law in Philadelphia and other cities regarding plumbing.

Not only must we have a law requiring a certain air space and ventilation in our buildings, but also around our dwellings, workshops, etc.

The width of all new streets and passageways should be of a sufficient breadth. Every block of buildings should have a complementary garden or park. Every building should be accompanied by a certain air space.

Such topographical regulations must be insisted upon in our growing cities, if we mean to reduce the present alarming death-rate and suffering from phthisis.

This ventilation of our cities and towns by the laying out of wide and diagonal streets and reservations of open spaces for gardens and parks, is essential for the successful ventilation of our buildings.

A pure and constantly renewed atmosphere is requisite for the prevention of consumption. This is well known and universally admitted beyond doubt or controversy.

All knives, forks, spoons, cups, and other eating utensils should be thrown into scalding water immediately after using, otherwise the tuberculous sputum will be carried from one person to another.

Dentists and physicians should be required to disinfect their instruments according to a law of the State, and be subject to inspection and a heavy fine for a violation of the same.

The cleansing of all public conveyances should be regulated by law.

We should have laws regulating the ventilation of our animal stables. Cows, like men, require physical exercise and pure air and light to enable them to resist tuberculosis.

The hot, close, dark and dirty stables throughout our State are important factors in promoting tuberculosis in our cattle; therefore, regulations should be formulated for ventilation, light, and cleanliness of animal sheds and stables. These should be under the inspection of competent and honorable inspectors.

Boiling of cattle should be forbidden by law.

As there are at present so many cows predisposed to tuberculosis, and as it is more than probable that interbreeding intensifies predisposition, it should be defined and forbidden.

All consumptive animals should be condemned and killed after having been valued

and paid for by the State. The vending of the meat of such animals should be made criminal.

At present cows suffering with this disease are constantly being sold in our markets for the manufacture of mince-meat and sausages.

The breeding of tuberculous animals, the killing of which, at any time, should be delayed for the want of a sufficient appropriation to pay for the same, should not be permitted.

The sale of the milk of such animals should be forbidden under a heavy penalty.

As tuberculosis, actinomycosis, lymphadenoma and rheumatism with enlargement of the joints would frequently be taken the one for the other by the laymen, competent government inspectors should be appointed to make periodical and special inspection of all home cattle as well as those about to be brought into the State.

All butter and milk imported into the State should be subject to inspection for tuberculous material. All meat exposed for sale in our markets ought to be subject to inspection and condemnation.

The law should require physicians to report tubercular cases.

The proved transmissibility of tuberculosis from one person to another brings us face to face with the necessity of considering the question of admitting to our country tuberculous immigrants.

MEDICAL CHEMISTRY.

QUINA LAROCHE—A PERFECT WINE OF CINCHONA.

This celebrated French proprietary is said (*Bulletin de la Société Royale de Bruxelles*) to be prepared as follows:

Macerate 100 gm. quinquina succirubra coarsely powdered, for thirty minutes, in 100 ccm. of boiling water. Strain off the liquid and set aside. Macerate for several hours the residual magma in 1,000 gm. Malaga wine, and again strain off the liquid and set aside. Finally, macerate the magma in 500 gm. alcohol of 50°; strain off, and wash the residue with a little water to recover all the alcoholic tincture. Unite all the liquids, let stand for twenty-four hours, and filter.

To the filtrate add 800 gm. loaf sugar with the aid of a gentle heat, and again filter. The product is the *Vin de Quina Laroche*.

The *Vin de Quina Ferrugineux Laroche* (ferrated wine of cinchona, Laroche) is prepared by dissolving in 1,000 parts of the above wine 1 part of citro-ammoniacal pyrophosphate of iron.

THE COLOR OF OXYGEN.

Till now oxygen was believed to be as colorless in the liquid form as it is in the gaseous. But the Polish chemist, Olszewski, shows that it is only because thin layers of it have been examined that liquid oxygen has been believed to be without color. He has succeeded in getting a layer of it 30 millimeters thick, and he finds that it has a bright sky-blue color. The discovery is very important in point of view of the absorption spectrum of oxygen.

REGREENING OF PEAS AND BEANS WITH SALTS OF COPPER.

According to the *British Medical Journal*, the Health Committee of Glasgow have notified the dealers in colored peas that they will institute proceedings for the sale of such articles, whenever the circumstances are sufficient to warrant a prosecution.

The medical officer of health, in a report to the Health Committee, says: "The process of regreening is essentially fraudulent in its intention and commercial results; that regreening with sulphate of copper certainly does not make vegetables more wholesome—probably always makes them less wholesome, and in some proportions undoubtedly does so; and the public ought, in purchasing preserved vegetables, to ask for ungreened, or at least for vegetables free from copper."

The report then gives the history of this industry in France, the seat of the practice, showing that since 1853 the practice has been prohibited in Paris, and since 1860 throughout France; that commission after commission have reaffirmed the decision, until in 1889, when the Consulting Committee of Hygiene adopted a report of M. Grimaux to the effect that "in the position of our information as to the noxious influence of salts of copper, there is no ground for prohibiting the practice of regreening with salts of copper."

There is a law in Germany against the coloring of food-stuffs, as also in Massachusetts; and as the French government have finally yielded to the wishes of the manufacturers, the consumers must now look out for themselves.

NEWS AND MISCELLANY.

PROF. J. C. WILSON.

Dr. James C. Wilson was elected by the Board of Trustees of Jefferson Medical College to the chair of practice of clinical medicine, to succeed Dr. J. M. Da Costa, who resigned last Spring.

MEETING OF TRI-STATE MEDICAL ASSOCIATION OF GEORGIA, ALABAMA AND TENNESSEE.

The third annual meeting of the Tri-State Medical Association of Georgia, Alabama and Tennessee, which will be held in Chattanooga Tuesday, Wednesday and Thursday, Oct. 27th, 28th and 29th, at Turner Hall, Nos. 616 and 618 Cherry Street.

DR. FRANK TRESTER SMITH,
Secretary.

SEVENTEENTH ANNUAL SESSION OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

In the preliminary announcement of the programme for the seventeenth annual session of the Mississippi Valley Medical Association, to be held in St. Louis October 14th, 15th, and 16th, 1891, nearly fifty papers on various topics of interest to the general practitioner are listed to be read.

A regular classified programme will be issued and sent to members and the profession generally at an early date.

UNION MEETING OF THE DISTRICT MEDICAL SOCIETIES OF NORTHERN OHIO.

The Joint Committee appointed by the following Societies, to hold a Union Meeting of the North Western, the North Eastern and the North Central Ohio Medical Societies, at Mansfield, O., on Thursday, Friday and Saturday, Nov. 5th, 6th and 7th.

On Thursday evening the members will be entertained by a reception given in honor of the Association by the Hon. John Sherman, and on Friday evening by a reception given by the Hon. M. D. Harter. Every arrangement has been made to make this meeting a pleasant and profitable one, and we trust that a full attendance may be had.

Ample hotel accommodations will be arranged for; and an effort will be made to secure reduced rates on all the railroads of Ohio.

The following Committee of Arrangements have been appointed: Dr. R. Harvey Reed, Dr. J. W. Craig and Dr. George Mitchell, all of Mansfield.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The 19th annual meeting will be held at Kansas City, October 20th to the 24th, 1891. The Local Committee of Arrangements announces that all the railway passenger associations of the county, have granted a one and one-third fare rate for the round trip on the usual certificate plan, that is:

(1). Procure a certificate of attendance from the agent at the starting point by paying full fare to Kansas City.

(2). Have the certificate of attendance signed by the proper officer of the Association at Kansas City. This certificate will then procure return ticket for one-third fare. All the leading hotels of Kansas City will give special rates to delegates. Arrangements are being perfected for an excursion into Kansas, as one of the features of the entertainment of the Association. For any information as to the meeting, address

DR. E. R. LEWIS, Chairman, or

DR. JOSEPH SHARP, Secretary.

Local Committee of Arrangements, Kansas City, Mo.

IN PRAISE OF WOMEN.

O woman, in our hours of ease
Uncertain, coy and hard to please,
When pain and anguish wring the brow,
Then none so cheaply pleased as thou!
We've only to submit to take
Hot rhubarb tea and anti-ache,
And gizzard oil and ipecac,
And porous plasters on the back,
A flaxseed poultice, catnip tea,
And Quackem's pet discovery,
Hot water bags, and sweats beside,
And camphor nasally applied,
And castor oil and vaseline,
And coals with feathers burnt between,
And soothing syrup, paregoric,
Cold-water cloths and drinks caloric,
And all the housewife's category—
Tis then we see her in her glory,
Needing, to make her bliss complete,
But mustard plasters on our feet.

C. F. L. in *Harper's Bazar*.

WHAT ANTISEPSIS HAS DONE.

The generation of surgeons whose medical birth and bringing up date back no more than ten or a dozen years, have little conception of the trials that beset surgeons before the discoveries of Pasteur and Lister and the results that have flowed from them. As little, perhaps, as those of older growth have of the ante-anæsthetic times, when patients were poisoned with tobacco in order to produce muscular relaxation and were strapped to the table to keep them quiet while under the surgeon's knife, and when skill and speed were nearly synonymous terms in recounting the qualifications of an operator. We compare the results now obtained with those of fifteen or twenty years ago and are prone to forget the tremendous advantages we have, and to plume ourselves with scant reason on being better surgeons than we were in those days or than others were before us.

These reflections have been called forth while reading Sir James Paget's "Studies of Old Case Books," to which we have already referred, and observing the fatal course of many cases which nowadays would scarcely be looked upon as in any sense serious or demanding more than ordinary care and attention on the surgeon's part. We may believe that the author's cases could nowhere have received better care than they did in his hands, yet he relates a number of instances similar to the following in which a fatal termination in these days would seem almost inexcusable. The case was one of abscess, which was opened and discharged a large amount of pus "... and then the case went on after the usual manner of the time, nearly thirty years ago, and the patient died about five months after the accident, exhausted with suppuration, hectic, blocked femoral and iliac veins and bed-sores."

In almost any surgical work of those times and in the files of old journals the same story can be read. It was not that the surgeons were incompetent, far from it, for there were giants in those days, but because asepsis and antiseptics were unknown and unpracticed. We certainly have cause to congratulate ourselves and our patients as well, or more, that we live and work in the days of anesthetics and of antiseptics. But who would not give much for a peep ahead to see what surgeons of fifty years hence will be doing, what wonders they will be able to accomplish, and what by us undreamt of methods will then be in daily and hourly use?—*Medical Record*.

A NEW METHOD OF STAINING THE BACILLI OF LEPROSY AND TUBERCULOSIS.

Unna (*Monatshefte für prakt. Dermatol.*, June 1, 1891) proposes a new method of staining the bacilli of leprosy and of tuberculosis. By carrying out the following procedures the bacilli are stained brownish-red upon a colorless background.

1. Stain for five minutes in an aqueous borax-methylene-blue solution (1:1:100).
2. Wash in water.
3. Iodize for five minutes in a 5 per cent. solution of potassium iodide, containing a crystal of iodine.
4. Wash in absolute alcohol until blue clouds are given off.
5. Differentiate in creasol from a few seconds to a half minute.
6. Fix in rectified oil of turpentine.
7. Mount in balsam (a solution of yellow resin in oil of turpentine).

The method may be modified in the following manner for staining tissues:

1. Stain for five minutes in an aqueous solution of borax-methylene-blue (1:1:100).
2. Wash in water.
3. Iodize for five minutes in a 5 per cent. solution of potassium iodide.
4. Wash in absolute alcohol.
5. Differentiate from ten to thirty seconds in a solution of equal parts of glacial acetic acid, absolute alcohol and ether.
6. Harden and smooth by immersing in absolute alcohol.
7. Fix in rectified oil of turpentine.
8. Mount in balsam (a solution of yellow resin in oil of turpentine).

Good results may be obtained by omitting the fifth and sixth manipulations.—*News.*

A RUSSIAN PILL FOR ANTI-VACCINATIONISTS.

Riga is a city of some 180,000 inhabitants, comprising 6,500 "orthodox" Russians who object *conscientiæ causæ* to vaccination, and reside in one quarter of the town. Between the years 1882-87 the average mortality from small-pox was 108 annually. From December, 1886, to the end of March, 1887, about four months, there were 155 deaths from this cause, owing to a slight epidemic during that period. Of this number 71 occurred among the orthodox population, equal to 109 per 10,000, while the deaths among the remaining inhabitants only numbered 84, equal to 4.8 per 10,000. Down to the year 1887, as stated above, the average

number of deaths annually from small-pox was 108. After this epidemic, vaccination and re-vaccination were largely enforced, with the result that from 108 the annual number of deaths due to this disease fell at once to 8.

MIDWIVES IN TURKEY.

The following is the text of a recent irad promulgated in Turkey, regulating the practice of midwifery. 1°. Midwives who are called to attend upon lying-in-women are held to give the greatest attention to cleanliness; they must wear clean garments, and carefully trim and brush their finger nails and wash their hands. Under no pretext whatever must they keep the soiled linen of lying-in-women, or other soiled objects. 2°. After having trimmed and brushed their nails, and washed their hands, they must employ a disinfectant whose formula has been given to all the pharmacies. 3°. As soon as a midwife perceives symptoms of disease in a lying-in woman, and medical diagnosis shows it to be puerperal fever, the midwife must not attend any other parturient woman, without first having taken baths and changed her underwear and clothing. 4°. Any infraction of these rules will subject the midwife to severe punishment.

And yet some say that the Ottoman Empire is composed of barbarians. Our own Boards of Health could read with profit the sanitary regulations of the sons of Othman.—*St. Louis Med. Surg. Jour.*

ETHER-DRINKING IN NORWAY.

The theory has been more than once advanced that the origin of ether-drinking in Ireland can be traced to the success of Father Mathew's crusade against drunkenness in its ordinary forms. Alcoholic nature, driven out by the pitchfork of his eloquence, returned in a new disguise, and the last state of the victims was as bad as the first. This theory has been called in question, but it receives accidental confirmation from what is at present happening in Norway. As English travelers know, the sale of ardent liquors is, in that happy country, encompassed about with more restrictions than that of the most deadly poisons is with us; temperance, in fact, is the law of the land in Norway, as Lord Eldon declared that Christianity was in England. But, alas! these people made sober by Act of Parliament have now discovered how to get drunk without violating the law. Ether-drinking, according to a

Norwegian contemporary, is becoming quite common in certain districts. The farmers buy it in considerable quantities, especially at Christmas-time and on other festive occasions, and they treat each other and get drunk on ether, as they formerly did on potato or barley brandy. Ether is said to be drunk by young and old men and women, rich and poor, by society belles as a "pick-me-up" after a night's dancing, and by starving wretches, to make them, like Tam o' Shanter, "o'er a' the ills of life victorious." If this be true, it seems to point a moral which perhaps thorough-going temperance advocates have not taken sufficiently into account. Is there, after all, a grain of truth in Byron's thesis (which, by the way, found a scientific supporter in no less a person than Justus von Liebig) that "man being reasonable must get drunk," and can the moderate use of ordinary stimulants be suppressed only at the risk of the evil spirit, which has been cast out, coming back after the house has been swept and garnished, bringing with him seven devils worse than himself? The facts are disheartening.—*Brit. Med. Jour.*

THE POISON OF TOADS AND SALAMANDERS.

The skin of toads and salamanders has lately been submitted to microscopical examination by Mr. Schulz, who finds that there are two kinds of glands present in the skin of these animals, viz., mucous and poisonous glands. The former are present all over the body; the latter are confined to the back of the body and limbs and the ear region behind the eyes; and in the salamander are present at an angle of the jaw. The poison glands are larger than the mucous glands in the salamander, are oval, and have a dark granular appearance, due to strongly refractive drops of poison, a good reagent for which is copper hæmatoxylin. The poison is secreted by epithelial cells lining the glands, and, when the animal is stimulated by electricity, it is exuded slowly in drops by the toad, but discharged in a fine jet, sometimes to the distance of a foot or more, by the salamander. The anæsthetic action of the poison of the toad and the use to which it is put in medicine by the Chinese has frequently been pointed out.—*Monthly Journal of Pharmacy.*

MISTAKES OF A PHYSICIAN.

First—To promise a patient you will cure him.

Second—To promise to call at an exact specified time.

Third—To promise that the malady will not return.

Fourth—To promise that you can render more efficient service than your fellow practitioner.

Fifth—To promise that your pills are not bitter or that the knife will not hurt.

Sixth—To promise that the chill or fever will not rage so high to-morrow.

Seventh—To allow your patient to dictate methods of treatment or remedies.

Eighth—To allow yourself to be agitated by the criticisms or praises of the patient's friends.

Ninth—To allow yourself to buoy the patient when the case is hopeless.

Tenth—To allow yourself to make a display of your instruments.

Eleventh—To allow yourself to experiment or exhibit your skill uncalled for.

Twelfth—To allow yourself by look or action in a consultation to show that you are displeased and that if you had been called first matters would have been different.

Thirteenth—To allow yourself to indulge in intoxicating beverages.

Fourteenth—To allow yourself to rely wholly upon the subjective symptoms for your diagnosis.

Fifteenth—To allow yourself to tell the patient you are perscribing saccharum album when you are giving calomel.

Sixteenth—To allow yourself to give arsenic and quinine when a bread and water placebo will answer.

Seventeenth—To allow yourself to tell Mr. Smith the weak places and irregularities of habit in Mr. Jones' family.

Eighteenth—To allow yourself to give your services or an opinion without a reasonable fee or a reasonable expectancy.—*Kansas Med. Jour.*

EXPERIMENTS ON ANIMALS.

The return made to the House of Commons by Dr. G. V. Poore, the inspector under the Act 39 and 40 Victoria, has just been issued. The report gives the names of all persons who have held licenses or special certificates during the year 1890, and the total number of experiments performed by them. The total number of licensees is 110, of whom thirty-three performed no experiments. There were forty-eight licensing places in thirty-three different institutions in England and Scotland. The return shows that licenses and certificates were granted and

allowed only upon the recommendation of persons of high scientific standing, and that the licensees were persons who by their training and education were fitted to undertake experimental work and to profit by it. The total number of experiments performed in 1890 was 2102, and they are subdivided into the tables according to the nature of the experiments. Thus there were 920 in which the animal suffered no pain, because complete anesthesia was maintained from before the commencement of the experiment until the animal was killed. In 857 other experiments the pain was trivial, simply a hypodermic injection or inoculation, it being a condition of the certificate granted in such cases that the animal shall be killed if pain result. In 316 cases the animal was anesthetised during the operation, but was allowed to recover, care being taken to ensure the painless healing of the wounds by antiseptic dressings. The inspector states that in his visits to the various licensed places he has never seen a single animal which appeared to be in bodily pain. "As regards the nature of the experiments, 765 were physiological, 976 were pathological, and 361 were therapeutical or pharmacological. In the domain of pathology investigations have been made concerning tuberculosis, cancer, diphtheria, pneumonia, tetanus, acute necrosis, malaria, lead poisoning, rabies, distemper, grouse disease, anthrax, 'black quarter,' 'pink eye,' &c. In the department of physiology the questions of animal heat, circulation, respiration, secretion, and the action of the central nervous system have been investigated; while among the therapeutical questions which have been here examined are the action of chloroform, morphia, nicotine, salicylic acid, strophanthus, and many other bodies which are new or less widely known, together with investigations into the protective and other powers of bacteria and ferments." Dr. Poore refers to his appointments in the spring of 1890 to succeed Professor Erichsen in the office of inspector, and the appointment in August of Dr. J. A. Russell of Edinburgh as assistant inspector. Dr. Thornley Stoker furnishes the report for Ireland, where three persons hold licenses, and they performed seventy-eight experiments, of which fifty-nine were physiological and nineteen therapeutical.

SHOULD YOUNG DOCTORS WRITE?

When a young man begins his medical

career the question sometimes arises whether he ought to write articles for medical journals. The first and instinctive response is in the negative. He has had but little experience, and he cannot possibly add anything to the sum of medical knowledge. But this view of the matter is, in fact, not entirely correct. For, in the first place, the capacity for literary work, and of putting ideas in written words has to be developed early in life. To the vast majority of men writing is a mighty task because the habit was never acquired during the plastic season of youth. If a man does not begin to write before he is forty he will never do it at all. The practice of writing, therefore, though it may be acquired at the expense of a good deal of indifferent work, helps the physician in his maturer years to embody results that are of great importance and interest. There are, as everyone knows, in all large cities a number of medical men of brilliant attainments, large experience—acute, practical, and successful. But they cannot write; and the profession is but little the better for their labors. Usually such gentlemen speak lightly of literary work and do not believe in "rushing into print." As a matter of fact they only do not do it because they cannot.

The kind and amount of literary work which young men can wisely undertake is limited, and this fact should be steadily borne in mind. Reporting cases must be done very little. The case should either be unique in kind or of positive interest therapeutically or pathologically. Experimental work in physiological or pathological laboratories is a kind always open to young men, and almost always gives results in some increment to medical knowledge.

A field of literary labor also in which young men can usually work profitably is that of collating and digesting critically all contributions upon certain subjects. Such articles, if prepared carefully in connection with personal observations, are often of great service to older and busier men.

Many young men make the mistake in pursuing a certain task, of attempting to prove too much or of investigating too wide a field. It is much better to settle a little matter positively and forever, than to bombard a large subject with inconsequential results.

Finally, we would remind young men that therapeutical problems are the most difficult to solve; and that books should never be written by the immature.—*Medical Record.*